

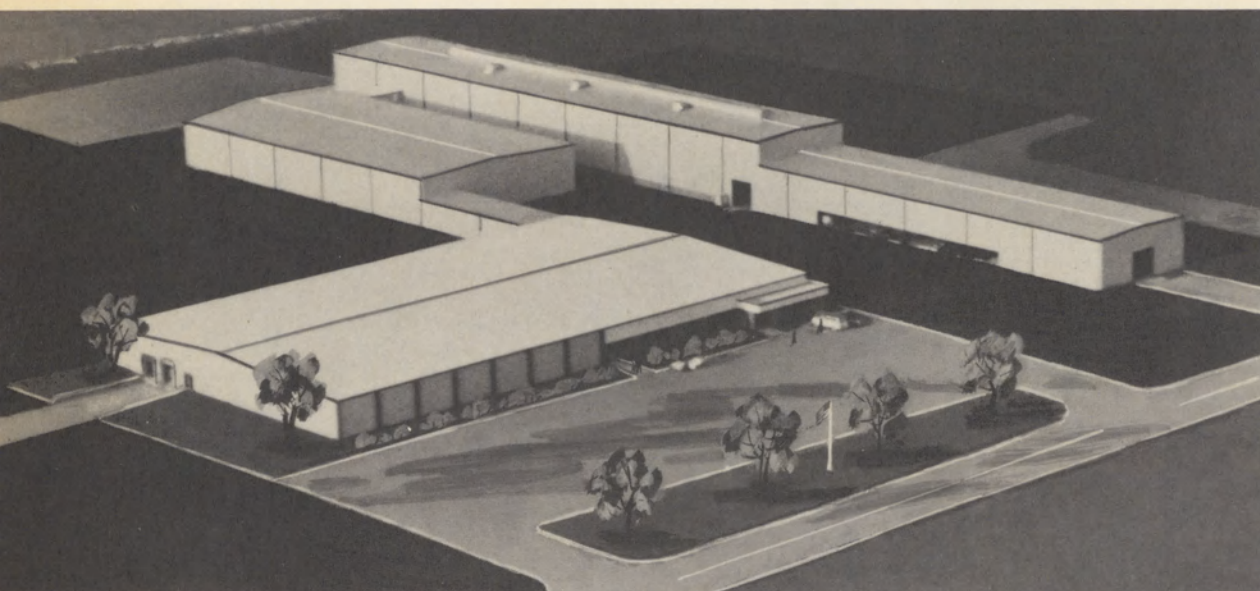
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Klein Tools, Inc. Chicago, Ill. U.S.A.



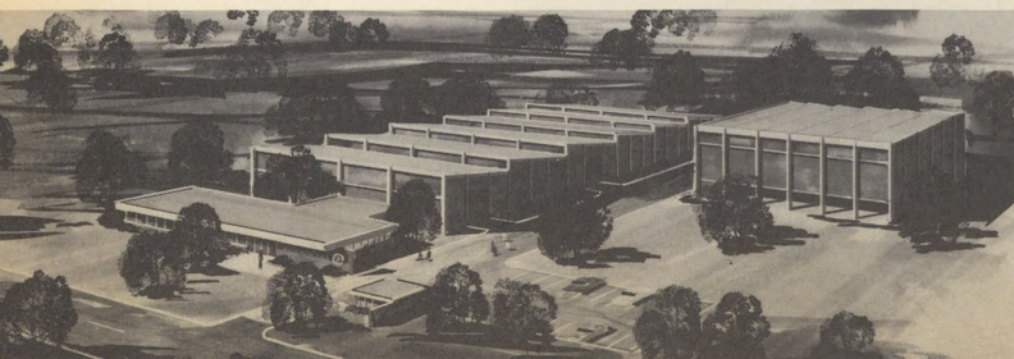


*Headquarters;
Warehouse
and Main Plant
Klein Tools, Inc.
Chicago, Illinois*



*Forging Facility
Klein Tools, Inc.
Moran, Kansas*

*Safety Equipment Plant
Klein Tools, Inc.
R.H. Buhrke Division
Fort Smith, Arkansas*



*Mexican Affiliate
Herramientas Klein, S.A. De C.V.
Mexico City, D.F. Mexico*



Hand me the Kleins. . . Since 1857

When Mathias Klein emmigrated from Germany and made his way west to set up shop in Chicago's bustling downtown business district, the "communications industry" amounted to nothing more than a few bare wires strung on lean telegraph poles. That was in 1857.

Perhaps the only job Mathias Klein ever did "half-way" involved the first tool he made, which was—in fact—one half of a pair of pliers. A broken side cutting plier was brought to Klein's forge shop by a telegraph lineman. Mathias Klein hand forged and finished a new half, riveted it to the old, and the lineman went on his way.

Shortly thereafter the lineman returned. The tool had broken again, and Mathias Klein forged the second plier half, producing the first complete Klein plier.

Since 1857, the company operated by Mathias Klein and his descendants to the fifth generation, has grown and prospered alongside the telecommunications and electric industries in which Klein pliers found their first major application.

But as the sheer heft of this catalog quickly indicates, Klein Tools, Inc. is much more than Klein pliers. Since 1857 the company's product line has grown to include virtually every major type of hand tool; tools that are in ever increasing demand in electronics, construction, refrigeration, air conditioning and general industry, as well as maintaining their traditional pre-eminence in the electric and telecommunications fields. In addition Klein Tools now supplies a large and growing line of personal safety equipment, including safety belts, harnesses, straps, lanyards and protective head gear.

Since Mathias Klein forged the first Klein plier many things have changed. The main Chicago Post Office Building now towers from the site of that original forge shop.

Like the industrial field they serve, Klein Tools has grown. In 1968, Klein acquired the R.H. Buhrke Company to meet the increasing needs for an expanded line of safety equipment, a need that was forcefully emphasized by passage of the Federal Occupational Health and Safety Act of 1970.

Through establishment in 1972 of a Mexican subsidiary, Herramientas Klein, S.A. De C.V., the company produces the high quality tools that Mexico increasingly needs to expedite its ambitious programs of industrial expansion. Outside North America, Klein serves world wide markets through its Export Department headquartered in Chicago.

In 1975, Klein Tools erected a new, completely modern forging plant in Moran, Kansas. This multi-million dollar facility provides the forging capacity to insure additional production and acceleration of new product introduction.

Since its inception, however, one thing about Klein Tools has not changed. Nor will it. Klein remains dedicated to supplying only the finest quality hand tools, specially designed for the professional worker. Reflecting this emphasis, Klein tools cannot be found in mass merchandisers or discount houses. Instead, you will find Klein tools available at your local wholesalers serving the professional user.

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For a more detailed listing of all Klein Tools and Safety Equipment, consult the alphabetical and numerical indices in the back of this catalog.



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PLIERS

"Hand Me the Kleins"

"Hand me the Kleins" means pliers. Pliers that feel right and work right. Job-matched for every kind of work you do. Designed and built to exceptional quality standards in a tradition that dates back to 1857. Klein specializes in the making of the world's finest pliers. Pliers that professionals can trust completely. And with good reason.

All Klein pliers are made of alloy tool steel. They are drop-forged, hardened, and carefully tempered to assure maximum strength, problem-free performance, and unusual durability.

All mating surfaces and design dimensions are precision machined to extremely close tolerances for faultless performance. Plier halves are matched side to side, jaw to jaw, and hot riveted for uniformly smooth opening and closing action. Cutting knives are hand sharpened for long-lasting edge and perfect alignment.

The cutting knives on all Klein pliers are designed to meet according to the way each type of cutting plier is used. The knives meet first where the most cutting is done. Side cutters and long nose pliers with side cutters have knives that meet at the hinge first and meet at least three quarters of the knife length. Klein diagonal cutters meet at the tip and meet at least three quarters of the knife length. These two knife-closing designs are also intended to increase knife life and facilitate resharpening.

Klein pliers are comfortable to use with scientifically contoured handles which are sized and shaped for efficient use. Virtually all pliers are available with plastic-dipped handles for better gripping and added comfort.

Klein pliers are individually adjusted and load tested to meet performance standards far exceeding application requirements—to make sure that nothing less than Klein quality ever carries the Klein name.

Klein offers a complete line of pliers, listed and described in the following order:

- Side Cutting Pliers
- Iron Worker's Side Cutting Pliers
- Diagonal Cutting Pliers
- Long Nose Pliers
- Duck Bill Pliers
- Special Purpose Pliers
- Electronics Pliers
- Slip-Joint Pliers
- Pump Pliers
- Wire-Stripping & Crimping Pliers
- Pocket Tool Kits
- Replacement Plastic Handles

If you don't find the type or size of Klein plier to meet your specific requirements, contact us to discuss your needs. We make many special pliers for a variety of applications.

You...and OSHA...and Klein Tools.

Safety on the job and efficient work are two things everybody wants, employer and employee alike. Here's exactly what the Occupational Safety and Health Act of 1970 says about hand tools:

(Part 1926, Subpart I—Tools—Hand and Power.)

Section 1926.301 Hand tools.

"(a) Employers shall not issue or permit the use of unsafe hand tools.

"(b) Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs.

"(c) Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.

"(d) The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool."

The OSHA requirements for hand tools also say that no matter who owns or supplies the tools, they must be maintained in safe condition.

Safe tools are efficient tools. Worn out or broken tools aren't safe and they're not efficient. They can be dangerous to the user and those working near him. Worn tools should be repaired or replaced as required.

The cost of a new tool is small when compared to an injury or lost time or substandard performance.

The right plier for every job.

Each type of plier does its own particular job better than any other type. And Klein makes so many kinds of pliers because there are so many kinds of jobs to be done. Choosing the right plier helps you do the job at hand more easily, more efficiently, and more safely.

The professional takes his job—and his tools—seriously. He will equip himself with every kind of plier he needs because he knows this small investment will pay off continuously in saved time and professional results.

Using pliers.

The professional knows all the rules about using pliers. He has heard them or read them or learned them through experience. But if you can recall even one rule you may have forgotten, then the following will be more than worthwhile.

1. Never use pliers to do another tool's job.

A plier is not a hammer or a pry tool or a wrench. Using a plier instead of the proper tool risks damaging the plier, damaging the work, damaging yourself, and losing time. It's never worth it.

2. Never push pliers beyond their capacity.

Bending stiff wire with light pliers or the tip of needle nose pliers can spring them or break them. Use a stronger, blunt nose plier. When you need greater leverage, use a plier with greater leverage. Don't extend the length of the plier handles. Bolts should be cut with a bolt cutter, large cable with a cable cutter. To each it's own.

3. Never expose pliers to excessive heat.

Direct flame on metal can draw the temper and ruin the tool. Cutting pliers are especially vulnerable to high, direct heat.

4. Never cut hardened wire with ordinary pliers.

Pliers should not be used for cutting hardened wire unless they are specifically recommended for this use.

5. Never rock pliers from side to side when cutting wire...and never bend the wire back and forth against the cutting knives.

Either practice can dull or nick the cutting edges. Cut wire at a right angle only. If it won't cut through readily, the knives may need sharpening. Or you may need a plier with greater leverage.

6. Never cut any wire or metal unless your eyes are protected.

Safety glasses or other protective devices are an absolute must. It's easy to forget to wear them. It's a big bother to put them on for "just one cut." You've heard all the reasons and excuses. But none of them make any sense. They're all part of the lazy man's way, not the professional's way...the safe way.

7. Never cut any wire or metal unless your fellow workers' eyes are also protected.

Now maybe you never heard that one before. But it makes sense. The wire that doesn't get you may get somebody else. So think about the "other guy" as well as yourself.

8. Never depend on plastic-dipped handles to insulate you from electricity.

Ordinary plastic-dipped handles are for comfort and a firmer grip. They are not intended for protection against electric shock.

Repair or replace?

Attempts to repair pliers are *not recommended*. However, proper maintenance is a must. Dull cutting knives may be sharpened with a small, medium-grade honing stone. The knurl inside the plier nose may be cleaned with a wire brush. And an occasional drop of oil at the plier hinge will help preserve the plier and assure easy operation. But any plier which is cracked, broken, sprung, or has nicked cutting knives should be discarded and replaced.

Klein Cutting Knives.

Klein offers cutting pliers with three basic types of knife edges: Standard, semi-flush, and full-flush. Each type is designed to make a specific kind of cut in wire of a certain general degree of hardness as follows:

Standard—For cutting hard wire. Found on all Klein Side Cutting Pliers and on most Diagonal Cutting Pliers.



Semi-flush—For close cutting of medium wire.



Full-flush—For close, flat cutting of soft wire only.



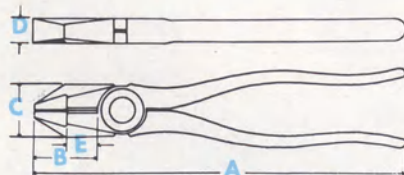
Klein Plier Handles.

Klein pliers have three basic types of handles: "Handform," curved, and extended. Each type is designed for maximum comfort and efficiency in the use of each type of plier. All Side Cutting Pliers have "Handform" handles shaped to fit the hand for the application of full gripping and cutting power. Most Diagonal Cutters and Electronics Pliers have curved handles for greater control over the cutting, bending, looping, and forming of wire. Extended handles are provided on our 8-inch Long Nose and 8-inch Duck Bill pliers for longer reach and increased leverage.

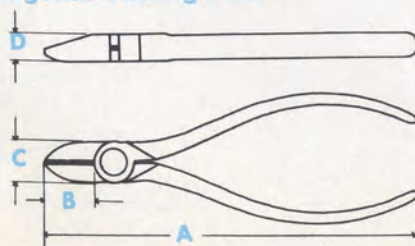
Plier Dimensions.

All Klein pliers are listed with necessary dimensions in both inches and millimeters. The drawings of six basic types of pliers below are keyed by letter to the dimensions given for each plier listed. All dimensions are subject to commercial tolerances.

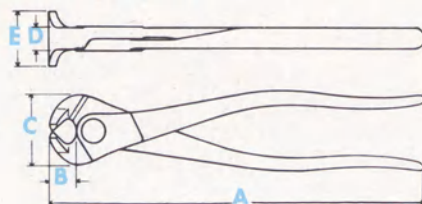
Side Cutting Plier



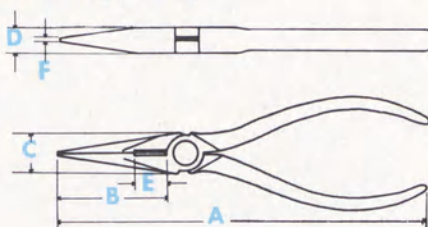
Diagonal Cutting Plier



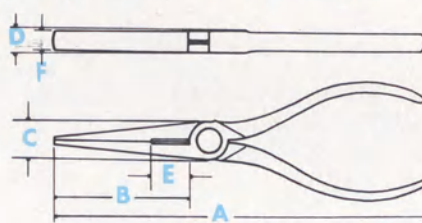
End Cutting Plier



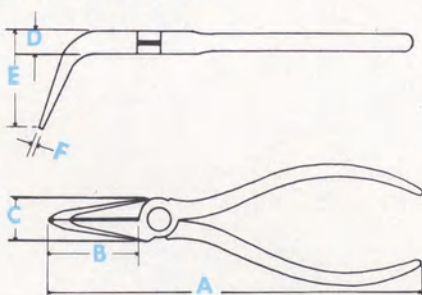
Long Nose Plier



Flat Nose and Duck Bill Pliers



Curved Nose Plier



A—Overall Length D—Jaw Thickness
B—Jaw Length E—Knife Length
C—Jaw Width F—Point Thickness

Plier Catalog Number Designations.

"D"—A Catalog Number prefixed with the letter "D" indicates that the plier is furnished with plastic-dipped handles. Handle color is given for each plier.

"C"—A Catalog Number followed by the letter "C" indicates that a coil spring is furnished in the plier handles to provide self-opening action.

Special Features Available on Klein Pliers.

(See the Klein Price List for cost details on all Special Features. Special Pliers are not returnable.)

Fully Polished Finish. The "working end" of all Klein pliers is polished. To specify fully polished pliers, add the prefix "FP" before the catalog number (Example: FP201-6). Minimum order, 24 pliers.

Fully Polished, High Gloss Buffed Finish. Buffing with a 300-grit belt produces a high luster resembling a buffed chrome plate finish. To specify fully polished, high gloss finish pliers, add the prefix "HG" before the catalog number (Example: HG201-6). Minimum order, 24 pliers.

Chrome Plated Finish. Copper nickel chrome plating over standard finish. To specify chrome-plated pliers, add the prefix "NC" before the catalog number (Example: NC201-6). Minimum order, 48 pliers (sizes may be assorted, 12 minimum per size).

Flush Cutting Diagonal Pliers. Any Klein diagonal plier may be furnished without top bevel on knife for flush cutting. To specify flush-cutting diagonal pliers, add the prefix "FC" before the catalog number (Example: FCD245-5C). Minimum order, 24 pliers.

Long Nose Pliers with Special Points. Any Klein long nose pliers may be furnished with either 1/16" (1.6 mm) or 1/32" (.8 mm) points (see dimension F in drawing). To specify long nose pliers with 1/16" or 1/32" points, add the phrase "with 1/16-inch point" or "with 1/32-inch point" after the catalog number (Example: D301-5 with 1/32-inch point). Minimum order, 24 pliers.

Special Stripping Holes. Most Klein pliers having cutting knives may be furnished with one, two or three wire-stripping holes of various sizes. Holes are countersunk to produce sharp edges for clean removal of insulation. To specify special stripping holes, state the wire gauge size for each hole desired (maximum of three holes per plier). Minimum order, 12 pliers.

High Hardness Diagonal Pliers. For special applications, any Klein diagonal plier may be furnished hardened to Rockwell C 60 minimum. To specify high hardness, add the prefix "HH" before the catalog number (Example: HHD245-5C). Minimum order, 24 pliers.

"Hi Di" High-Dielectric Handle Coating. Four Klein side cutting pliers (HD201-8NE, HD213-8NE, HD213-9NE and HD213-9NETH) and one Klein pump plier (HD502-10) are available from stock with handles orange plastic-dipped to provide high dielectric strength (dielectric data furnished on request). Should only be used as a secondary precaution. Please write Klein Tools for information on other pliers available with this special "Hi Di" high-dielectric handle coating.



PLIERS

Side Cutting Pliers



The following pliers all have "Handform" handles.



High-leverage NE Type

Our most popular side cutting plier. Smooth, streamlined nose with knurled jaws. High-leverage design provides 46% greater cutting and gripping power than regular 8½-inch and 9¼-inch side cutters. Blue plastic-dipped handles.

Cat. No.	A	B	C	D	E
D213-8NE	8½	1⅞	1⅞	⅝	2⅝
	(216)	(37)	(31)	(16)	(18)
213-8NE	With plain handles.				
HD213-8NE	With high-dielectric orange plastic-dipped handles.				
D213-9NE	9¼	1⅞	1⅞	⅝	2⅝
	(235)	(41)	(33)	(16)	(20)
213-9NE	With plain handles.				
HD213-9NE	With high-dielectric orange plastic-dipped handles.				



NE Type Side Cutters

Smooth, streamlined design. Slides more easily in and out of tool pouch. Blue plastic-dipped handles.

Cat. No.	A	B	C	D	E
D201-6NE	6¼	1⅞	2⅞	½	⅞
	(159)	(28)	(23)	(13)	(14)
201-6NE	With plain handles.				
D201-7NE	7⅞	1⅞	1⅞	½	⅞
	(186)	(33)	(29)	(13)	(16)
201-7NE	With plain handles.				
D201-8NE	8½	1⅞	1⅞	⅝	2⅝
	(216)	(37)	(31)	(16)	(18)
201-8NE	With plain handles.				
HD201-8NE	With high-dielectric orange plastic-dipped handles.				
D201-9NE	9¼	1⅞	1⅞	⅝	2⅝
	(235)	(41)	(33)	(16)	(20)
201-9NE	With plain handles.				



High-leverage NE Type with crimping die

Same high-leverage design and mechanical cutting advantage as D213-9NE plier, but with crimping die at the hinge for crimping sleeve connectors. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	E
D213-9NE-CR	9¼	1⅞	1⅞	⅝	2⅝
	(235)	(41)	(33)	(16)	(20)



High-leverage NE Type with thread holder

Same high-leverage design and mechanical cutting advantage as D213-9NE plier, but with ⅝-inch diameter, 11 thread opening at the hinge for line work. Lets you hold threaded end of bolts without damaging threads, clean and straighten threads, remove or install pole hardware more easily, safely. Blue plastic-dipped handles.

Cat. No.	A	B	C	D	E
D213-9NETH	9¼	1⅞	1⅞	⅝	2⅝
	(235)	(41)	(33)	(16)	(20)
213-9NETH	With plain handles.				
HD213-9NETH	With high-dielectric orange plastic-dipped handles.				



Side Cutters with sleeve twisters

With sleeve openings for No. 12 NBS and No. 10 B&S (.104). Blue plastic-dipped handles.

Cat. No.	A	B	C	D	E
D212-8	8½	1⅞	1⅞	⅝	2⅝
	(216)	(37)	(31)	(16)	(18)
212-8	With plain handles.				



Square Nose Side Cutters

This is the original Klein side cutting plier for general-purpose use. Squared nose and knurled jaws. Blue plastic-dipped handles.

Cat. No.	A	B	C	D	E
D201-6	6¼	1⅞	2⅞	½	⅞
	(159)	(28)	(23)	(13)	(14)
201-6	With plain handles.				
D201-7	7⅞	1⅞	1⅞	½	⅞
	(186)	(33)	(29)	(13)	(16)
201-7	With plain handles.				
D201-8	8½	1⅞	1⅞	⅝	2⅝
	(216)	(37)	(31)	(16)	(18)
201-8	With plain handles.				
D201-9	9¼	1⅞	1⅞	⅝	2⅝
	(235)	(41)	(33)	(16)	(20)
201-9	With plain handles.				



High-leverage Side Cutters

An original Klein design, this plier provides a 46% greater mechanical advantage than regular 9¼-inch side cutters. Blue plastic-dipped handles.

Cat. No.	A	B	C	D	E
D213-9	9¼	1⅞	1⅞	⅝	2⅝
	(235)	(41)	(33)	(16)	(20)
213-9	With plain handles.				

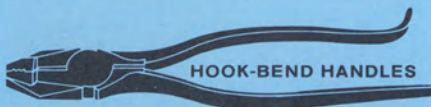


Universal Side Cutters

Knurled front jaws, toothed pipe grip, and side cutting knives. Available with or without wire cutters on both sides. With blue plastic-dipped handles.

Cat. No.	A	B	C	D	E
12096	8½	2¼	1⅞	½	⅞
	(216)	(57)	(26)	(13)	(14)
12095	With plain handles.				
12098	With wire cutters and blue plastic-dipped handles.				
12097	With wire cutters and plain handles.				

Iron Worker's Side Cutters



The following pliers all have Hook-Bend handles.



Regular Design

Specially designed and sharpened for cutting soft annealed tie wire used on reinforcing rods. Coarsely knurled jaws. Hook bend in one handle for non-slip grip. Coil spring holds jaws open.

Cat. No.	A	B	C	D	E
201-7CST	8 $\frac{3}{4}$ (222)	1 $\frac{1}{32}$ (33)	1 $\frac{1}{32}$ (29)	$\frac{1}{2}$ (13)	$\frac{5}{8}$ (16)



High-leverage Design

High-leverage design for easier cutting of soft annealed tie wire. Provides a 46% greater mechanical cutting and gripping advantage than other pliers of this type. Coarsely knurled jaws. Hook bend in one handle for non-slip grip. With coil spring.

Cat. No.	A	B	C	D	E
213-9ST	9 $\frac{9}{32}$ (236)	1 $\frac{1}{16}$ (37)	1 $\frac{1}{32}$ (31)	$\frac{5}{8}$ (16)	2 $\frac{3}{32}$ (18)

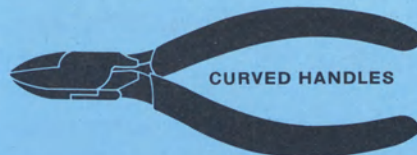
(For our complete listing of Iron Worker's Tools, see pages 36-39.)



Leather holders for Klein pliers are on page 53.

Order from your local distributor. Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.

Diagonal Cutting Pliers



The following pliers all have Curved handles.



Klein Standard Diagonal Cutters

This is the basic Klein diagonal cutting plier with tapered nose and standard bevel cutting knives. Available with or without coil spring to hold jaws open. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D245-5	5 (127)	1 $\frac{1}{16}$ (17)	$\frac{9}{16}$ (14)	$\frac{3}{8}$ (10)
D245-5C	With coil spring.			



Standard Model with "W" stripping notches

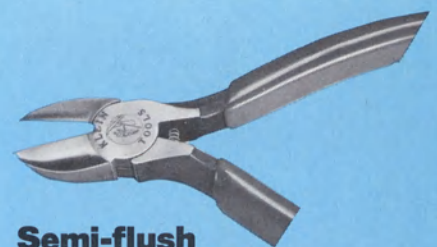
Our standard diagonal cutters with tapered nose and standard bevel cutting knives. "W" stripping notches in the nose. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D245-5W	5 (127)	1 $\frac{1}{16}$ (17)	$\frac{9}{16}$ (14)	$\frac{3}{8}$ (10)

Key to Plier Dimensions

A—Overall Length D—Jaw Thickness
B—Jaw Length E—Knife Length
C—Jaw Width F—Point Thickness

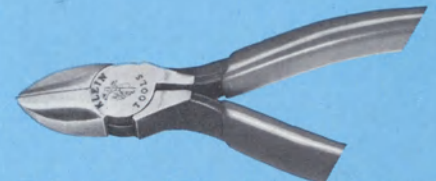
All dimensions on this page are in inches and (millimeters).



Semi-flush Diagonal Cutters

Semi-flush cut. For plastic trimming or printed circuit board work. With coil spring. Red plastic-dipped handles.

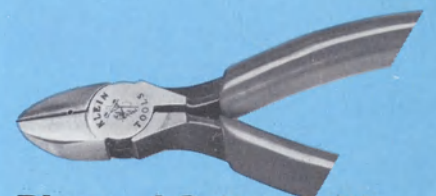
Cat. No.	A	B	C	D
D210-5C	5 $\frac{1}{2}$ (140)	1 $\frac{3}{16}$ (21)	1 $\frac{1}{16}$ (17)	$\frac{7}{16}$ (11)
D210-6C	6 $\frac{1}{16}$ (154)	1 $\frac{3}{16}$ (21)	1 $\frac{1}{16}$ (17)	$\frac{7}{16}$ (11)



Standard Model Cutters

Tapered nose and standard bevel cutting knives. Available with or without coil spring. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D202-5	5 $\frac{1}{2}$ (140)	1 $\frac{3}{16}$ (21)	1 $\frac{1}{16}$ (17)	$\frac{7}{16}$ (11)
202-5	With plain handles.			
D202-5C	With coil spring.			
D202-6	6 $\frac{1}{16}$ (154)	1 $\frac{3}{16}$ (21)	1 $\frac{1}{16}$ (17)	$\frac{7}{16}$ (11)
202-6	With plain handles.			
D202-6C	With coil spring.			



Diagonal Cutters with .052-inch skinning hole

Tapered nose and standard bevel cutting knives. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D240-5	5 $\frac{1}{2}$ (140)	1 $\frac{3}{16}$ (21)	1 $\frac{1}{16}$ (17)	$\frac{7}{16}$ (11)
D240-6	6 $\frac{1}{16}$ (154)	1 $\frac{3}{16}$ (21)	1 $\frac{1}{16}$ (17)	$\frac{7}{16}$ (11)



PLIERS

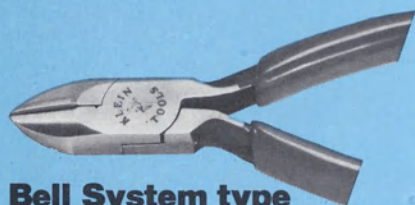
Diagonal Cutting Pliers CONT'D



Bell System type with skinning hole

Tapered nose and standard bevel cutting knives. With "W" stripping notches and .052" skinning hole. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D202-5SW	5½ (140)	13/16 (21)	1/16 (17)	7/16 (11)
D252-6SW	6 (152)	13/16 (21)	3/4 (19)	7/16 (11)



Bell System type with "V" notch

Designed for work on switchboards. Tapered nose and standard bevel cutting knives. With "W" notches in nose to slit insulation and "V" notch at hinge to crush insulation. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D528V	5 (127)	5/8 (16)	9/16 (14)	3/4 (10)



Heavy-duty Diagonal Cutters

Heavier design for all-purpose use. Tapered nose and standard bevel cutting knives. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D252-6	6 (152)	13/16 (21)	3/4 (19)	7/16 (11)

Heavy-Duty Diagonal Cutters With "Handform" Handles



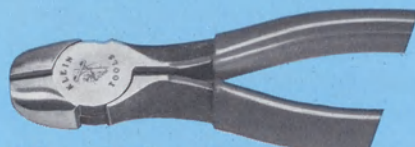
The following pliers all have "Handform" handles.



Tapered Nose Design

Tapered nose and standard bevel cutting knives. One-inch jaws reach into confined spaces. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D220-7	7 11/16 (195)	1 (25)	31/32 (25)	1/2 (13)
220-7	With plain handles.			



Short Nose Design

Provides greater leverage at tip. Standard bevel cutting knives. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D220-7SN	7 1/4 (184)	5/8 (16)	31/32 (25)	1/2 (13)

High-leverage Heavy-duty Cutters



Short Tapered Nose

High-leverage design provides a 36% greater mechanical cutting and gripping advantage than regular 8" heavy-duty diagonal cutters. Standard bevel cutting knives. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D228-8	8 (203)	13/16 (21)	13/16 (30)	7/16 (11)



Short Tapered Nose with angled head

High leverage with head angled for easier work in confined areas. Standard bevel cutting knives. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D248-8	8 (203)	13/16 (21)	13/16 (30)	7/16 (11)



Short Tapered Nose with skinning holes

High-leverage with two skinning holes for 12- and 14-gauge wire. Standard bevel cutting knives. Red plastic-dipped handles.

Cat. No.	A	B	C	D
D243-8	8 (203)	13/16 (21)	13/16 (30)	7/16 (11)



Leather holders for Klein pliers are on page 53.

Order from your local distributor. Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.

Long Nose Pliers



CURVED HANDLES

The following pliers all have Curved Handles.



Standard Long Nose with side cutters

Standard long-nose design with cutting knives at hinge. Permits wrapping, looping, and cutting with a single plier. Available with or without coil spring. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	E	F
D203-5	5 $\frac{1}{16}$	1 $\frac{1}{16}$	1 $\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{32}$
	(141)	(40)	(17)	(10)	(13)	(2)
D203-5C	With coil spring and $\frac{1}{16}$ " (1.6 mm) point.					
D203-6	6 $\frac{5}{16}$	1 $\frac{15}{16}$	1 $\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{32}$
	(168)	(49)	(17)	(10)	(13)	(2)
D203-6C	With coil spring and $\frac{1}{16}$ " (1.6 mm) point.					
203-6	With plain handles.					
D203-7	7 $\frac{1}{16}$	2 $\frac{1}{16}$	1 $\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{32}$
	(181)	(62)	(17)	(10)	(13)	(2)
D203-7C	With coil spring and $\frac{1}{16}$ " (1.6 mm) point.					



Standard Side Cutters with stripping notches

Similar to 203 series above, but with two stripping holes at hinge for stripping 19- and 22-gauge wire. For telephone switchboard work. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	E	F
D203-6H2	6 $\frac{5}{16}$	1 $\frac{15}{16}$	1 $\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{32}$
	(168)	(49)	(17)	(10)	(13)	(2)

Key to Plier Dimensions

A—Overall Length D—Jaw Thickness
B—Jaw Length E—Knife Length
C—Jaw Width F—Point Thickness

All dimensions on this and facing page in inches and (millimeters).



Klein Standard Long Nose

This is the basic Klein long nose plier. Available with or without coil spring. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D301-5	5 $\frac{1}{16}$	1 $\frac{1}{16}$	1 $\frac{1}{16}$	$\frac{3}{8}$	$\frac{3}{32}$
	(141)	(40)	(17)	(10)	(2)
D301-5C	With coil spring and $\frac{1}{16}$ " (1.6 mm) point.				
D301-6	6 $\frac{5}{16}$	1 $\frac{15}{16}$	1 $\frac{1}{16}$	$\frac{3}{8}$	$\frac{3}{32}$
	(168)	(49)	(17)	(10)	(2)
D301-6C	With coil spring and $\frac{1}{16}$ " (1.6 mm) point.				
301-6	With plain handles.				
D301-7	7 $\frac{1}{16}$	2 $\frac{1}{16}$	1 $\frac{1}{16}$	$\frac{3}{8}$	$\frac{3}{32}$
	(181)	(62)	(17)	(10)	(2)
D301-7C	With coil spring and $\frac{1}{16}$ " (1.6 mm) point.				



Long Nose with 1/16-inch point

Same as D301-6 plier above, but with point only $\frac{1}{16}$ " in diameter. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D303-6	6 $\frac{5}{16}$	1 $\frac{15}{16}$	1 $\frac{1}{16}$	$\frac{3}{8}$	$\frac{1}{16}$
	(168)	(49)	(17)	(10)	(1.6)

Plier Catalog Number Designations

"D"—A Catalog Number prefixed with the letter "D" indicates that the plier is furnished with plastic-dipped handles. Handle color is given for each plier.

"C"—A Catalog Number followed by the letter "C" indicates that a coil spring is furnished in the plier handles to provide self-opening action.



"HANDFORM" HANDLES

The following plier has "Handform" handles.



Heavy-duty Side Cutters with "Handform" handles

Heavier design for easier, more comfortable cutting. 203-8N pliers have a skinning hole for No. 12 B&S insulated wire. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	E	F
D203-8	8 $\frac{5}{16}$	2 $\frac{1}{16}$	1	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{1}{8}$
	(211)	(59)	(25)	(13)	(16)	(3)
203-8	With plain handles.					
D203-8N	8 $\frac{5}{16}$	2 $\frac{1}{16}$	1	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{1}{8}$
	(211)	(59)	(25)	(13)	(16)	(3)
203-8N	With plain handles.					



EXTENDED HANDLES

The following plier has Extended handles.



Special Long-reach Design

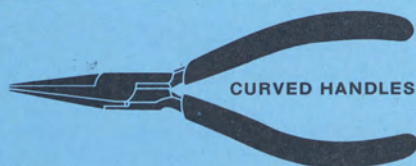
Longer handles for more convenient use and greater jaw gripping power. Knurled jaws. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D314-8	8	1 $\frac{15}{16}$	1 $\frac{1}{16}$	$\frac{3}{8}$	$\frac{3}{32}$
	(203)	(49)	(17)	(10)	(2)



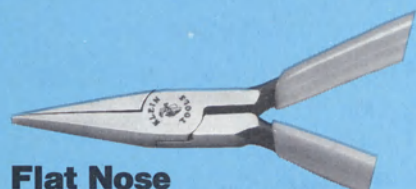
PLIERS

Duck Bill Pliers



CURVED HANDLES

The following pliers all have Curved Handles.

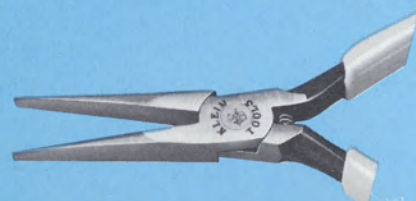


Flat Nose

Jaw width tapers down to narrow flat tip. Polished inside jaws. With or without coil spring. Pastel plastic-dipped handles.

Cat. No.	A	B	C	D	F
D323-4½	4¾	1½	⅞	¼	⅝x⅞
	(121)	(27)	(11)	(6)	(3x1.6)

D323-4½C With coil spring.



Concave Outside Jaws

Jaw width tapers to narrow, rounded tip. Concave jaws reach easily into tight places. Inside jaws are polished. With coil spring. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D306-5½C	5⅞	1¾	1⅞	⅝	⅞
	(142)	(44)	(13)	(8)	(3)



Regular Duck Bill

Rounded tip and wide, flat gripping surface. Inside jaws are smooth. Yellow plastic-dipped handles.

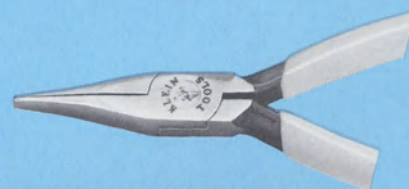
Cat. No.	A	B	C	D	F
D304-6	6½	2½	1½	¾	¾
	(165)	(59)	(17)	(10)	(10)



Heavy-duty Flat Nose

Flat-nose design with inside jaws knurled. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D305-6	6½	2½	1½	¾	⅝
	(165)	(59)	(17)	(10)	(8)



Spring Adjusting Plier

Concave outside jaws and narrow tip for small springs. Inside jaws are polished. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D326-5	5⅞	1¾	1⅞	⅝	⅞x⅞
	(129)	(30)	(13)	(8)	(4x1.6)



Relay Spring Adjusting Plier

Wide tip and deeply concave outside jaws to reach between and grasp springs easily. Inside jaws are polished. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D311-5½	5⅞	1¾	1⅞	⅝	⅞x⅞
	(151)	(41)	(17)	(10)	(7x1.6)



Leather holders for Klein pliers are on page 53.

Order from your local distributor. Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.



EXTENDED HANDLES

The following plier has Extended handles.

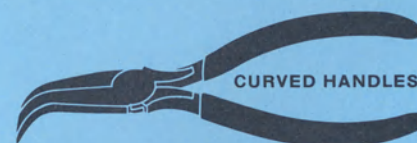


Special Long-reach Design

Longer handles for more convenient use and greater jaw-gripping power. Knurled jaws. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D315-8	8	1½	1⅞	¾	⅞x⅞
	(203)	(40)	(17)	(10)	(2x7)

Special Purpose Pliers



CURVED HANDLES

The following pliers all have Curved Handles.



Curved Nose Plier

Nose curved to approx. 70° angle for working around obstructions and in hard-to-reach spaces. Provides full view of work area. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	E	F
D302-6	6¼	1½	1⅞	¾	1¾	⅞
	(159)	(38)	(17)	(10)	(44)	(2)

Key to Plier Dimensions

A—Overall Length D—Jaw Thickness
B—Jaw Length E—Knife Length
C—Jaw Width F—Point Thickness

All dimensions on this page are in inches and (millimeters).

Special Purpose Pliers CONT'D



Long Nose Insulation Skinner

A special plier for telephone work designed to skin 22- or 24-gauge wire. Slot provided in nose to crush insulation. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D2291	6	1 1/4	1 1/8	3/8	1/8
	(152)	(32)	(17)	(10)	(1.6)



Special Skinning Plier

Designed for cutting and skinning 24-gauge synthetic-coated wire. Notch back of cutting blade crushes insulation, blade produces quick, clean cut. Tapered nose reaches into confined spaces. Red plastic-dipped handles.

Cat. No.	A	B	C	D	E
D317-5P	5 1/4	7/8	1/2	5/16	1/4
	(133)	(22)	(13)	(8)	(6)



Connector Crimping Pliers with side cutters

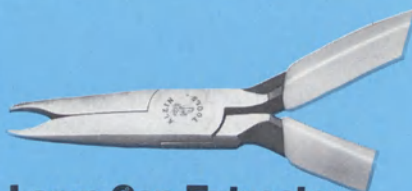
Designed to seat UG, UR and UY connectors. Stop behind cutout prevents damage to connectors. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D
D234-6	6	5/8	1 1/8	3/8
	(152)	(16)	(17)	(10)

Connector Crimper without side cutters

Same as D234-6 plier above, but without side cutting knives.

Cat. No.	A	B	C	D
D334-5	5 3/8	3/8	1 1/8	3/8
	(137)	(16)	(17)	(10)



Lamp Cap Extractor

Specially designed to extract lamps from switchboards. Yellow plastic-dipped handles.

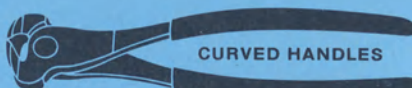
Cat. No.	A	B	C	D	F
D319B	5 1/4	1 1/4	1/2	5/16	1/32
	(133)	(32)	(13)	(8)	(.8)



Plastic-cutting Plier

Flush diagonal cutting knives for clean, precise cutting of injection mold sprues, gates and other plastic. Screw adjustment with 1/8" hollow-head screw keeps knife edges from damaging each other. *Not designed for use on metal.* With coil spring, red plastic-dipped handles.

Cat. No.	A	B	C	D
D227-7C	7 1/4	1 1/2	3/32	1/2
	(195)	(38)	(25)	(13)



CURVED HANDLES

The following plier has Curved handles.



High-leverage End Cutting Plier

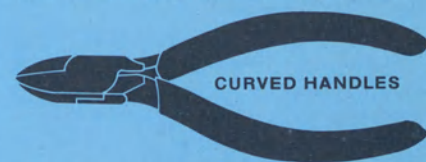
For cutting wire or nails close to the work. With wide throat clearance, ample handle leverage, and jaws at just the right angle for easy cutting. Makes a clean, even cut. Red plastic-dipped handles.

Cat. No.	A	B	C	D	E
D232-8	7 23/32	7/8	1 1/2	1/2	1 1/2
	(196)	(22)	(38)	(13)	(38)

Diagonal Cutting Electronics Pliers

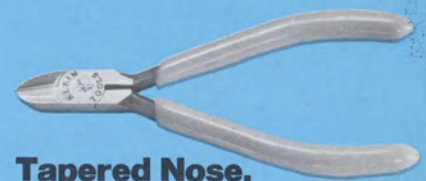
Electronics Pliers

Klein makes a wide variety of specialized pliers for electronics work. Their design, size and weight are specially adapted to meet the specific requirements of the electronics industry. All are available with coil springs to hold plier jaws open for faster, more efficient, less tiring use. Plastic-dipped handles provide a better grip and added comfort.



CURVED HANDLES

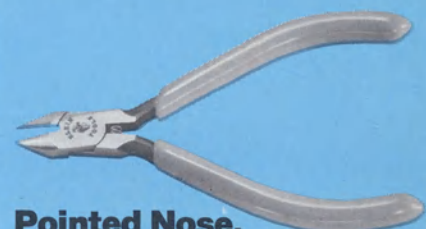
Except as shown, all Electronics Pliers have Curved handles.



Tapered Nose, semi-flush cutting

General-purpose cutter with short, strong, tapered nose. Knives are semi-flush cutting. With or without coil spring. Pastel plastic-dipped handles.

Cat. No.	A	B	C	D
D257-4	4 3/8	1/2	3/16	1/4
	(106)	(13)	(11)	(6)
D257-4C	With coil spring.			



Pointed Nose, semi-flush cutting

Sharp nose for working in confined areas. Widely used for trimming printed circuit boards. Specifically designed for tip cutting. With coil spring. Pastel plastic-dipped handles.

Cat. No.	A	B	C	D
D209-4C	4 3/8	1/2	3/16	1/4
	(106)	(13)	(11)	(6)
D209-5C	5	1 1/8	9/16	3/8
	(127)	(17)	(14)	(10)



PLIERS

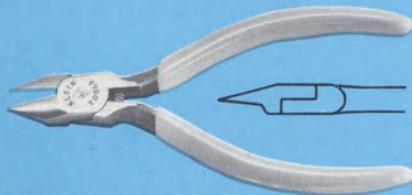
Diagonal Cutting Electronics Pliers CONT'D



Wire-gripping Pointed Nose

Similar in design to semi-flush cutting D209-5C, but with steel springs between the jaws to hold clipped ends of wire for disposal away from work. Specifically designed for tip cutting. With coil spring. Pastel plastic-dipped handles. (U.S. Patent No. 2,938,266.)

Cat. No.	A	B	C	D
D229-5C	5 (127)	$\frac{11}{16}$ (17)	$\frac{9}{16}$ (14)	$\frac{3}{8}$ (10)



Narrow Pointed Nose

Similar in design to semi-flush cutting D209 Series plier, but relieved in the back to permit entry into confined areas. Specifically designed for tip cutting. With coil spring. Pastel plastic-dipped handles.

Cat. No.	A	B	C	D
D219-4C	$4\frac{3}{16}$ (106)	$\frac{1}{2}$ (13)	$\frac{7}{16}$ (11)	$\frac{1}{4}$ (6)
D219-5C	5 (127)	$\frac{9}{16}$ (16)	$\frac{9}{16}$ (14)	$\frac{3}{8}$ (10)

Plier Catalog Number Designations
 "D"—A Catalog Number prefixed with the letter "D" indicates that the plier is furnished with plastic-dipped handles. Handle color is given for each plier.

"C"—A Catalog Number followed by the letter "C" indicates that a coil spring is furnished in the plier handles to provide self-opening action.



Tapered Nose, Narrow Jaw, full-flush cutting

Narrow jaw and narrow hinge. Reaches into confined areas to permit full-flush cutting. With coil spring. Pastel plastic-dipped handles.

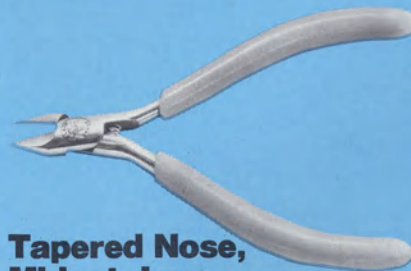
Cat. No.	A	B	C	D
D244-5C	5 (127)	$\frac{11}{16}$ (17)	$\frac{1}{2}$ (13)	$\frac{9}{16}$ (8)



Tapered Nose, Extra-narrow Jaw, full-flush cutting

Fine, narrow jaw taper and narrow hinge for especially delicate work. With coil spring. Pastel plastic-dipped handles.

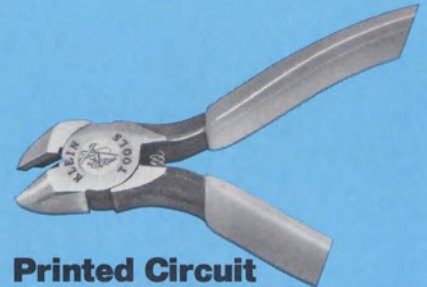
Cat. No.	A	B	C	D
D259-4C	$4\frac{3}{16}$ (106)	$\frac{1}{2}$ (13)	$\frac{13}{32}$ (10)	$\frac{1}{4}$ (6)



Tapered Nose, Midget Jaw, full-flush cutting

Our smallest diagonal cutter, designed to permit working in very close quarters with maximum visibility. With coil spring. Pastel plastic-dipped handles.

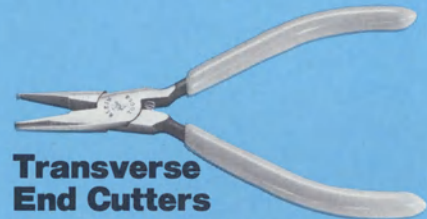
Cat. No.	A	B	C	D
D295-4C	$4\frac{3}{16}$ (106)	$\frac{1}{2}$ (13)	$\frac{3}{8}$ (10)	$\frac{1}{4}$ (6)



Printed Circuit Cutter-Crimper

Cuts and crimps wire on printed circuits in one operation. Jaws angled for more efficient use. Holds wire in place permitting efficient dip soldering. With coil spring. Pastel plastic-dipped handles.

Cat. No.	A	B	C	D
D052C	$5\frac{1}{8}$ (130)	$\frac{7}{16}$ (11)	$\frac{1}{16}$ (17)	$\frac{3}{8}$ (10)



Transverse End Cutters

Semi-flush cutting knives at tip. Ample $\frac{5}{8}$ " (16 mm) jaw slot for wire end. Plier may be extended vertically into work. With coil spring. Pastel plastic-dipped handles.

Cat. No.	A	B	C	D	E	F
D224-4½C	$4\frac{3}{8}$ (118)	$1\frac{5}{16}$ (24)	$\frac{7}{16}$ (11)	$\frac{1}{4}$ (6)	$\frac{1}{8}$ (3)	$\frac{1}{8}$ (3)

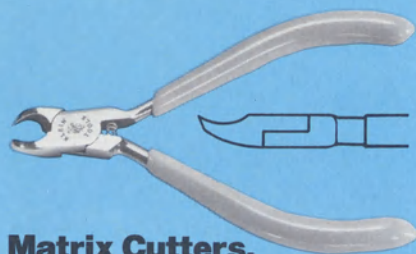


High-hardness Pointed Cutters, semi-flush cutting

Designed for cutting nickel ribbon wire. Cutting knives hardened to Rockwell C60—as hard as a file. Nose only $\frac{1}{16}$ " (1.6 mm) at tip for use in confined spaces. Semi-flush knives are hand honed under a magnifier. Cutting knife at tip is $\frac{3}{8}$ " (9.5 mm) long. With coil spring and high-gloss finish. Pastel plastic-dipped handles.

Cat. No.	A	B	C	D
D230-4C	$4\frac{3}{8}$ (106)	$\frac{1}{2}$ (13)	$\frac{1}{2}$ (13)	$\frac{7}{16}$ (11)

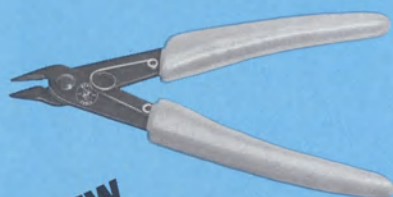
Diagonal Cutting Electronics Pliers CONT'D



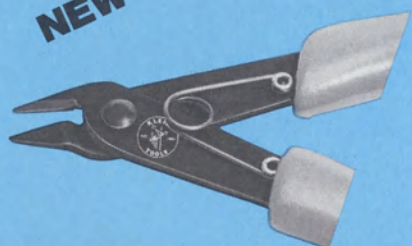
Matrix Cutters, semi-flush cutting

Designed for work on miniature electronic assemblies. Combines the advantages of an end cutter and a diagonal cutter. High-hardness, semi-flush knives are angled for easy cutting of nickel ribbon wire. With coil spring and high-gloss finish. Pastel plastic-dipped handles.

Cat. No.	A	B	C	D
D263-4C	4 (102)	$\frac{3}{16}$ (5)	$\frac{7}{16}$ (11)	$\frac{1}{4}$ (6)



NEW



Lightweight Flush Cutter

This inexpensive plier shears wire up to No. 14 AWG with unique flush-cutting action that minimizes fly-off. Design greatly reduces cutting effort. Compact head is easy to manipulate in tight areas. Comfortable red foam plastic-covered handles. Lightweight yet rugged construction. Steel hold-open spring.

Cat. No.	Length
D275-5	5" (127 mm).

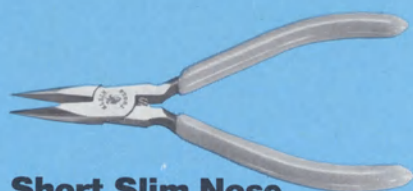
Long Nose Electronics Pliers



Short Slim Nose

Our smallest, lightest slim nose plier. Designed for precision subminiature assembly work. Knurled jaws. With or without coil spring. Pastel plastic-dipped handles.

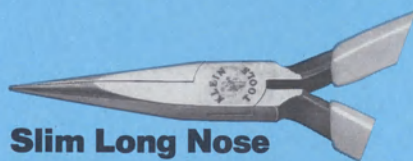
Cat. No.	A	B	C	D	F
D321-4½	$4\frac{3}{4}$ (121)	$1\frac{1}{16}$ (27)	$\frac{7}{16}$ (11)	$\frac{1}{4}$ (6)	$\frac{1}{32} \times \frac{1}{16}$ (.8x1.6)
D321-4½C	With coil spring.				



Short Slim Nose with smooth jaws

Similar to D321-4½ above, but with smooth inside jaws and radiused jaw edges to prevent nicking wire. With coil spring. Pastel plastic-dipped handles.

Cat. No.	A	B	C	D	F
D322-4½C	$4\frac{3}{4}$ (121)	$1\frac{1}{16}$ (27)	$\frac{7}{16}$ (11)	$\frac{1}{4}$ (6)	$\frac{1}{32} \times \frac{1}{16}$ (.8x1.6)



Slim Long Nose

Longer nose and handles for deeper reach into work. Knurled jaws. With or without coil spring. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D307-5½	$5\frac{9}{16}$ (141)	$1\frac{3}{4}$ (44)	$\frac{1}{32}$ (13)	$\frac{3}{16}$ (8)	$\frac{1}{16}$ (1.6)
D307-5½C	With coil spring.				

Order from your local distributor.

Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.



Slim Long Nose with smooth jaws

Similar to D307-5½, but with smooth inside jaws and radiused jaw edges to prevent nicking wire. With coil spring. Blue plastic-dipped handles.

Cat. No.	A	B	C	D	F
D327-5½C	$5\frac{9}{16}$ (141)	$1\frac{3}{4}$ (44)	$\frac{1}{32}$ (13)	$\frac{3}{16}$ (8)	$\frac{1}{16}$ (1.6)



Tapered Long Nose

Larger and sturdier, yet shaped for efficient entry into confined areas. Knurled jaws. With coil spring. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D310-6C	$6\frac{1}{8}$ (168)	$1\frac{1}{4}$ (49)	$\frac{1}{16}$ (17)	$\frac{3}{8}$ (10)	$\frac{1}{16}$ (1.6)



Chain Nose

Short, strong jaws for bending and forming medium-gauge wire. With coil spring. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D317-5C	$5\frac{1}{4}$ (133)	$1\frac{1}{8}$ (29)	$\frac{1}{2}$ (13)	$\frac{5}{16}$ (8)	$\frac{1}{16}$ (1.6)

Key to Plier Dimensions

A—Overall Length D—Jaw Thickness
B—Jaw Length E—Knife Length
C—Jaw Width F—Point Thickness

All dimensions on this and facing page in inches and (millimeters).



PLIERS

Long Nose Electronics Pliers CONT'D



Needle Nose

Unique design combines length and feel of a regular long nose plier with 1 1/8" (28 mm) needle nose for easy reach into tight places. Knurled jaws. With coil spring. With or without side cutting knives. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	E	F
D301-6SCPC	6 5/8"	1 1/8"	1 1/8"	3/8"	1/2"	1/16"
	(168)	(49)	(17)	(10)	(13)	(1.6)

D203-6SCPC With side cutting knives.



Long Needle Nose

Our longest needle nose. For accurate assembly work in hard-to-reach areas. Affords maximum visibility. Knurled jaws. With or without coil spring. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	F
D318-5 1/2	5 1/2"	1 3/4"	1/2"	3/16"	1/16"
	(137)	(44)	(13)	(8)	(1.6)

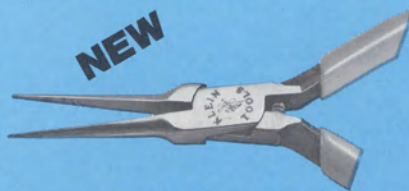
D318-5 1/2C With coil spring



Long Needle Nose with smooth jaws

Similar to D318-5 1/2 above, but with smooth inside jaws and radiused jaw edges to prevent nicking wire. With coil spring. Blue plastic-dipped handles.

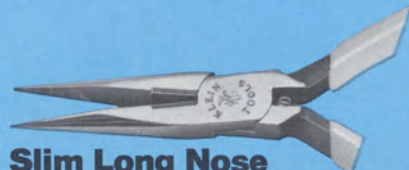
Cat. No.	A	B	C	D	F
D328-5 1/2C	5 1/2"	1 3/4"	1/2"	3/16"	1/16"
	(137)	(44)	(13)	(8)	(1.6)



Extra-slim Needle Nose

Long, narrow nose and slim hinge for efficient use in extremely close quarters. Finely knurled jaws grip thin wire without damaging it. With coil spring. Pastel plastic-dipped handles.

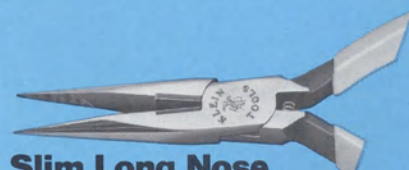
Cat. No.	A	B	C	D	F
D335-5 1/2C	5 1/2"	1 3/32"	1 1/32"	1/4"	1/16"
	(140)	(44)	(12)	(6)	(1.6)



Slim Long Nose with side cutters

Needle tip only 1/32" in diameter for precise assembly work. Side cutters permit bending, forming and cutting with a single plier. Knurled jaws. With coil spring. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	E	F
D221-5 1/2C	5 1/2"	1 3/4"	1 1/32"	3/16"	1/16"	1/32"
	(141)	(44)	(13)	(8)	(11)	(.8)



Slim Long Nose with side cutters

Same as D221-5 1/2C above, but with longer handles.

Cat. No.	A	B	C	D	E	F
D222-6C	5 1/2"	1 3/4"	1/2"	3/16"	1 1/32"	1/32"
	(151)	(44)	(13)	(8)	(10)	(.8)

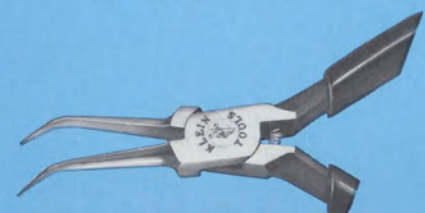
Order from your local distributor.
Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.



Slim Long Nose

Ideal for production line use. Same as D222-6C, but without side cutting knives. Needle-tip only 1/32" in diameter. Knurled jaws. With coil spring. Yellow plastic-dipped handles.

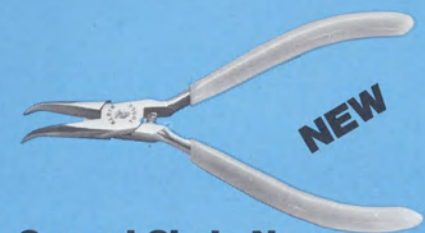
Cat. No.	A	B	C	D	F
D309-6C	5 1/2"	1 3/4"	1/2"	3/16"	1/32"
	(151)	(44)	(13)	(8)	(.8)



Curved Needle Nose

60° bend at nose for maximum work visibility, especially in confined areas. Polished inside jaws and radiused jaw edges to prevent nicking wire. With coil spring. Blue plastic-dipped handles.

Cat. No.	A	B	C	D	F
D338-5 1/2C	5 1/2"	1 3/4"	1/2"	3/16"	1/16"
	(133)	(44)	(13)	(5)	(1.6)



Curved Chain Nose

Designed to bend and form fine wire. Extra-slim nose for delicate work in narrow spaces. 60° bend at nose permits easy access to work and full visibility. Polished inside jaws and radiused jaw edges to prevent nicking wire. Pastel plastic-dipped handles.

Cat. No.	A	B	C	D	E	F
D320-4 1/2C	4 1/2"	1 3/4"	1 1/32"	1/4"	1/2"	1/16"
	(117)	(22)	(10)	(6)	(13)	(1.6)

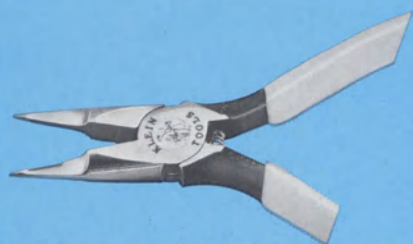
Long Nose Electronics Pliers CONT'D



Fatigue-reducing Needle Nose

A special Klein design produced in conjunction with Western Electric Company engineers. Minimizes bending of wrist, reduces strain and fatigue. Knurled jaws with rounded edges. With coil spring. Comfortable red foam plastic-covered handles.

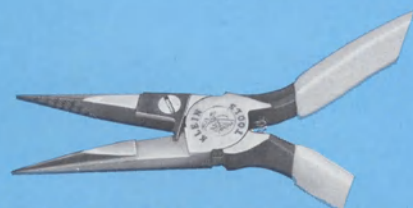
Cat. No.	A	B	C	D	F
D366-6C	7½	2	1⅛	¾	⅛
	(191)	(51)	(17)	(10)	(1.6)



Narrow-tip Long Nose with cutter

Jaws knurled at tip. Single cutting knife just behind point. With coil spring. Yellow plastic-dipped handles.

Cat. No.	A	B	C	D	E	F
D317-6PC	6	1¼	1⅛	¾	⅝	⅛
	(152)	(32)	(17)	(10)	(8)	(1.6)



Shear-cutting Long Nose

Equipped with replaceable blade. Will cut dead soft or hard wire. Knurled jaws. With coil spring. Yellow plastic-dipped handles. (U.S. Patent No. 2,848,810.)

Cat. No.	A	B	C	D	E	F
D208-6C	6¾	1½	1⅛	¾	½	⅛
	(168)	(49)	(17)	(10)	(13)	(1.6)
078-K	Replacement blade and screw.					

Slip-joint Pliers

All Klein slip-joint pliers are nickel-chrome plated with knurled handles. Have shear-type wire cutter and two jaw positions.



All Slip-joint Pliers have Curved handles.



Regular Nose

Cat. No.	A	B	C	D
511-6	6	1½	1⅛	13/32
	(152)	(28)	(30)	(10)
511-8	8	1½	1¼	7/16
	(203)	(33)	(32)	(11)
511-10	10	1½	1½	½
	(254)	(38)	(38)	(13)



Thin Nose

Thin nose for use in confined spaces.

Cat. No.	A	B	C	D
513-6	6	1½	1⅛	7/32
	(152)	(49)	(30)	(6)



Bent Thin Nose

Thin nose bent at 30° angle.

Cat. No.	A	B	C	D
512-6	6	1½	1⅛	7/32
	(152)	(33)	(30)	(6)

Key to Plier Dimensions

A—Overall Length D—Jaw Thickness
B—Jaw Length E—Knife Length
C—Jaw Width F—Point Thickness

All dimensions on this and facing page in inches and (millimeters).

Pump Pliers



All Pump Pliers have Straight handles.



Jaws are positioned and locked into place by engaging tongue in proper groove. Series of channels gives wide range of jaw openings. Jaws cannot slip even under heavy pressure. All four lengths with yellow plastic-dipped handles; 10" length also available with plain handles or with high-dielectric (HD) orange plastic-dipped handles.

Cat. No.	Length	Max. Capacity
D502-6	6½" (165 mm)	1" (25 mm)
D502-10	10" (254 mm)	1¾" (44 mm)
502-10	With plain handles.	
HD502-10	With high-dielectric orange plastic-dipped handles.	
D502-12	12" (305 mm)	2½" (54 mm)
D502-16	16" (406 mm)	4¼" (108 mm)

Hose Clamp Plier



Hose Clamp Plier

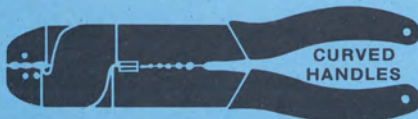
For the installation and removal of spring-tension hose clamps. Slip joint action grips full range of clamp sizes. Grips with either end or side of jaws for working in tight places. Nickel-chrome plated.

Cat. No.	A	B	C	D
514-6	7¾	1½	1⅛	¾
	(194)	(48)	(33)	(10)

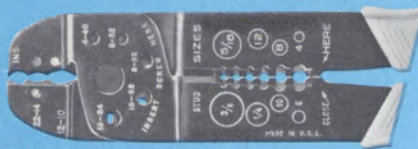


PLIERS/TOOL KITS

Wire-Stripping & Crimping Pliers



Both All-purpose Tools have Curved handles.



All-purpose 6-in-One Tool

Shears bolts clean, cuts wire, strips wire, measures stud sizes, gauges wire sizes, and crimps non-insulated terminals. Red plastic-covered handles.

Cat. No. 1000 Length 7½" (191 mm)



Super All-purpose Tool

General, all-purpose tool for crimping insulated terminals and splices, cutting wire, stripping wire, cutting bolts, crimping 7 mm ignition and distributor terminals. Wire cutter in nose. Man-sized, red plastic-covered handles contoured for comfort.

Cat. No. 1002 Length 8½" (216 mm)



Wire Stripper

A handy, light, compact tool for stripping insulation from wire. Convenient hole for looping or bending wire. With or without hold-open spring. Yellow plastic-dipped handles.

Cat. No. 1004 (with spring) Length 5" (127 mm)
1003 (without spring) 5" (127 mm)



Crimping Tool

Thin nose permits work in confined space. Crimping die marked for insulated and non-insulated solderless terminals and connectors. Accommodates wire from No. 10 to 22 AWG. Wire cutter in nose. Red plastic-dipped handles.

Cat. No. 1005 Length 9¾" (248 mm)

(For Side Cutting Plier with crimping die, see page 4.)

Pocket Tool Kits



Seven-Tool Kit

Handy kit for electricians and service men. Blue vinyl roll-up pouch with lace tie. Contains the following tools:
No. 201-6NE Side Cutting Plier
No. 301-6 Long Nose Plier
No. 202-5 Diagonal Cutting Plier
No. 1550-2 Electrician's Knife
4" (102 mm) File and Handle
5" (127 mm) Electrician's Tweezers
No. 19410 6" (152 mm) Screwdriver

Cat. No. 1305-33A



Six-Tool Kit

Blue vinyl roll-up pouch with lace tie. Contains the following tools:
No. 201-6NE Side Cutting Plier
No. 301-6 Long Nose Plier
No. 1550-2 Electrician's Knife
5" (127 mm) Electrician's Tweezers
4" (102 mm) File and Handle
No. 19410 6" (152 mm) Screwdriver

Cat. No. 1305-2



Four-Plier Kit

Handy fold-up kit holds four midget pliers. Blue vinyl case with two snaps fits your pocket. Contains the following tools:

No. D257-4 Diagonal Cutting Plier
No. D321-4½ Long Nose Plier
No. D224-4½C End Cutting Plier
No. D323-4½ Flat Nose Plier

Cat. No. 1305-4 Size Closed 7x2¾x1" (178x70x25 mm)



Leather holders for Klein pliers are on page 53.

Order from your local distributor. Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.



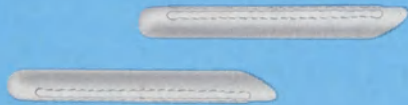
Replacement Plastic Handles



Slip-On Handles

Red plastic replacement handles in three sizes for pliers from 4" (102 mm) to 6½" (165 mm) long.

Cat. No.	Size To Fit Pliers
34	4" (102 mm) to 4½" (114 mm) long
35	5" (127 mm) to 5½" (133 mm) long
36	6" (152 mm) to 6½" (165 mm) long



"Klein-Koat" Tenite Handles

Tenite plastic handles in bright maroon color. Provide non-slip grip and greater comfort. In three sizes for pliers from 6" (152 mm) to 9" (229 mm) long.

Cat. No.	Size To Fit Pliers
60	6" (152 mm) long
70	7" (178 mm) long
89	8" (203 mm) or 9" (229 mm) long



Comfort-Grip Handles

An exclusive Klein plier handle of aerated plastic material to provide a firm but resilient cushion. Safety grip design prevents slipping even when hands are wet. In red only.

Cat. No.	Size To Fit Pliers
55	5" (127 mm) to 6½" (165 mm) long

For 44 pages of practical tips for professionals on using hand tools, see the booklet Proper use and care of Hand Tools, prepared by Klein Tools in conjunction with the Hand Tools Institute. Copies are available from Klein distributors.

Cable Cutters



BX Cutter

High-leverage, shear-type design for one-hand operation. Cuts cable easily and quickly. With stripping notches. Bow in handle designed to restore BX cable to original shape after cutting. Bolted joint for easy adjustment and more convenient resharpener. Red plastic-dipped handles.

Cat. No.	Length	Length of Cut
1104	7" (17.8 cm)	1½" (2.9 cm)
1104NB	Replacement Nut and Bolt.	



Cable Cutter

An economically priced, lightweight, yet efficient shear-type cable cutter for cutting soft cable up to 1½" diameter (3.5 cm) with a nominal rating of 500 MCM. Weighs only 4½ lbs (2 kg). Exceptionally strong fiberglass handles have high dielectric properties and have heavy rubber grips for comfort and added safety. Heavy-duty pins in head serve as blade-stops. Jaws are of drop-forged alloy tool steel and are replaceable if damaged or worn out. They have beveled tips to assure positive mating, and hinge on a rugged bolt with a pin-set nut to maintain proper blade tension. Makes a clean, even cut for ease in fitting lugs and terminals. **Not designed for cutting steel or ACSR.**

Cat. No.	Handle Length	Overall Length
63040	18" (45.7 cm)	25½" (64.8 cm)
63080	Replacement Cutter Head, complete.	

Receptacle Analyzer



Permits instant checking of receptacles for any of five common wiring faults. Analyzer plugs into any single-phase, 125-volt, 3-wire outlet. Combination of lighted and unlighted neon bulbs in pre-set sequence indicate circuit condition: Open Ground, Open Hot, Open Neutral, Hot/Ground—Reversed, Hot/Neutral—Reversed, or Correct.

Designed for quick, easy testing of circuits, but this is not a comprehensive diagnostic instrument. Two-wire outlets may be tested using a polarized plug adapter with ground wire. U.L. listed. Instructions included.

Cat. No. 69000

Order from your local distributor.

To better serve our customers, Klein Tools, Inc. has developed extensive national distribution through distributors. These distributors maintain a large stock of Klein tools and equipment in your own area and can fill your order rapidly. For the occasional item not in stock, our distributors receive prompt delivery from the factory. Order through your local distributor.



WRENCHES

Introduction

Klein makes a variety of standard and special-purpose wrenches for professional use. They are designed and built to feel right and work right...and meet the highest standards.

Virtually all Klein wrenches are drop-forged from the finest tool steel alloy, hardened, and thoroughly tempered for great strength, light weight, and long wear.

Wrench openings are smooth and accurately broached for close, correct fit to prevent slipping and to provide a sure, positive pull every time. Wrench ends are of the right thickness for the most efficient performance of each specific job.

Handles are rounded and shaped for safe, comfortable use. Each handle is of the correct length for maximum safe leverage and for proper balance in your hand. Klein Adjustable Wrenches are available with plastic-dipped handles for better gripping and added comfort.

You...and OSHA...and Klein Tools.

Safety on the job and efficient work are two things everybody wants, employer and employee alike. Here's exactly what the Occupational Safety and Health Act of 1970 says about hand tools:

(Part 1926, Subpart I—Tools—Hand and Power.)

Section 1926.301 Hand tools.

- "(a) Employers shall not issue or permit the use of unsafe hand tools.
- "(b) Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs.
- "(c) Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.
- "(d) The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool."

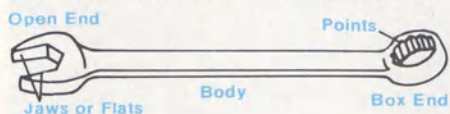
The OSHA requirements for hand tools also say that no matter who owns or supplies the tools, they must be maintained in safe condition.

Safe tools are efficient tools. Worn out or broken tools aren't safe and they're not efficient. They can be dangerous to the user and those working near him. Worn tools should be repaired or replaced as required.

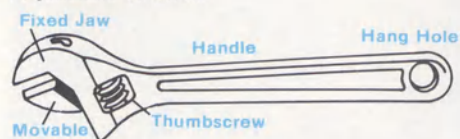
The cost of a new tool is small when compared to an injury or lost time or substandard performance.

The parts of a wrench.

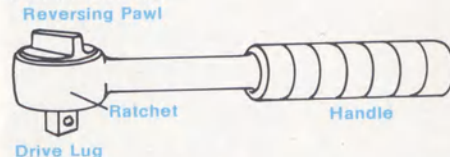
Combination Open-End and Box Wrench



Adjustable Wrench



Socket Wrench



The right wrench for every job.

Whatever the job, only a wrench of the proper type and size will give you the kind of results you want. That one right wrench will do the job correctly, with less effort and more safety than any other wrench.

This is a basic and obvious fact. We state it here only to reinforce the professional approach to tool selection. The man who makes his living with tools never needs to improvise, because the right tool, the right wrench, is always available to him.

Using wrenches.

Stop! Take a minute to read these few simple rules. We know you're not likely to find anything new here, but you might find something you've almost forgotten.

- 1. Never use a wrench to do another tool's job.** You won't do the job as well and you might damage or even break the wrench. And using a wrench as a hammer or a pry bar or anything else can be dangerous. Take the time to get the right tool.
- 2. Never use a wrench opening too large for the fastener.** Using a wrench opening too large for the nut or bolt can spread the jaws of an open-end wrench and batter the points of a box or socket wrench. A too-large wrench opening can also spoil the points of the nut or bolt head. And when selecting a wrench for proper fit, take special care to use inch wrenches on inch fasteners and metric wrenches on metric fasteners.

3. Never push a wrench beyond its capacity.

Quality wrenches are designed and sized to keep leverage and intended load (torque) in safe balance. The use of an artificial extension on the handle of any wrench can break the wrench, spoil the work, and hurt the user. Instead, get a larger wrench or a different kind of wrench to do the job. The safest wrench is a box or socket type. (To free a "frozen" nut or bolt, use a striking-face box wrench or a heavy-duty box or socket wrench. Never use an open-end wrench. And apply penetrating oil beforehand.)

4. Never expose a wrench to excessive heat.

Direct flame can draw the temper from the metal, weakening and possibly warping it, making it unsafe to use.

5. Never push on a wrench unless absolutely necessary.

There may be situations in which you can only push a wrench handle to loosen or tighten a nut or bolt. But you should always pull on a wrench to exert even pressure and avoid injury if the wrench slips or the nut breaks loose unexpectedly. (If you must push the wrench, do it with the palm of your hand and hold your palm open.)

6. Never cock or tilt an open-end wrench.

Always be sure the nut or bolt head is fully seated in the jaw opening for both safety and efficiency. A box or socket wrench should be used on hard-to-reach fasteners. Adjustable wrenches should be tightly adjusted to the work and pulled so that the force is applied to the fixed jaw.

7. Never depend on plastic-dipped handles to insulate you from electricity.

Ordinary plastic-dipped handles are for comfort and a firmer grip. They are not intended for protection against electric shock. (Special high-dielectric handle insulation is available, but it should only be used as a secondary precaution.)

Repair or replace?

Attempts to repair box, open-end, or combination wrenches are *not recommended*. Any of these wrenches with bent handles, spread, nicked or battered jaws or rounded or damaged box points should be discarded and replaced.

Socket and adjustable wrenches can be repaired by the replacement of damaged parts. Periodic inspection, cleaning, and light lubrication will maintain these wrenches and reveal any damage. An adjustable wrench with a spread or damaged fixed jaw or a bent handle should be discarded and replaced. Bent socket wrench handles and extensions, and cracked or battered sockets should be discarded and replaced.

Adjustable Wrenches



Standard-jaw Design

Drop-forged alloy steel for maximum strength and light weight. Chrome plated.

Cat. No.	Length	Capacity
500-4	4" (10.2 cm)	$\frac{1}{2}$ " (1.3 cm)
500-6	6" (15.2 cm)	$\frac{3}{4}$ " (1.9 cm)
500-8	8" (20.3 cm)	$\frac{15}{16}$ " (2.4 cm)
500-10	10" (25.4 cm)	$1\frac{1}{8}$ " (2.9 cm)
500-12	12" (30.5 cm)	$1\frac{5}{16}$ " (3.3 cm)
500-15	15" (38.1 cm)	$1\frac{11}{16}$ " (4.3 cm)
500-18	18" (45.7 cm)	$2\frac{1}{16}$ " (5.2 cm)
500-24	24" (61.0 cm)	$2\frac{7}{16}$ " (6.2 cm)



Same as Series 500 above, but with yellow plastic-dipped handles. 8", 10", and 12" lengths also available with high-dielectric orange plastic-dipped handles.

Yellow Plastic-dipped Handles

Cat. No.	Length	Capacity
D500-4	4" (10.2 cm)	$\frac{1}{2}$ " (1.3 cm)
D500-6	6" (15.2 cm)	$\frac{3}{4}$ " (1.9 cm)
D500-8	8" (20.3 cm)	$\frac{15}{16}$ " (2.4 cm)
D500-10	10" (25.4 cm)	$1\frac{1}{8}$ " (2.9 cm)
D500-12	12" (30.5 cm)	$1\frac{5}{16}$ " (3.3 cm)
D500-15	15" (38.1 cm)	$1\frac{11}{16}$ " (4.3 cm)
D500-18	18" (45.7 cm)	$2\frac{1}{16}$ " (5.2 cm)
D500-24	24" (61.0 cm)	$2\frac{7}{16}$ " (6.2 cm)

Orange High-dielectric Plastic-dipped Handles

Cat. No.	Length	Capacity
HD500-8	8" (20.3 cm)	$\frac{15}{16}$ " (2.4 cm)
HD500-10	10" (25.4 cm)	$1\frac{1}{8}$ " (2.9 cm)
HD500-12	12" (30.5 cm)	$1\frac{5}{16}$ " (3.3 cm)



Extra-capacity Design

Greater jaw capacity than standard design above. Same strong, lightweight alloy steel. Chrome plated.

Cat. No.	Length	Capacity
501-6	6" (15.2 cm)	$\frac{15}{16}$ " (2.4 cm)
501-8	8" (20.3 cm)	$1\frac{1}{8}$ " (2.9 cm)
501-10	10" (25.4 cm)	$1\frac{5}{16}$ " (3.3 cm)
501-12	12" (30.5 cm)	$1\frac{1}{2}$ " (3.8 cm)

NEW



Same as Series 501, but with semi-transparent red plastic-dipped handles.

Cat. No.	Length	Capacity
D501-6	6" (15.2 cm)	$\frac{15}{16}$ " (2.4 cm)
D501-8	8" (20.3 cm)	$1\frac{1}{8}$ " (2.9 cm)
D501-10	10" (25.4 cm)	$1\frac{5}{16}$ " (3.3 cm)
D501-12	12" (30.5 cm)	$1\frac{1}{2}$ " (3.8 cm)



Standard-jaw with black finish

Drop-forged and heat-treated alloy steel for maximum strength and light weight. Not chrome plated. Industrial black finish for economy.

Cat. No.	Length	Capacity
504-4	4" (10.2 cm)	$\frac{1}{2}$ " (1.3 cm)
504-6	6" (15.2 cm)	$\frac{3}{4}$ " (1.9 cm)
504-8	8" (20.3 cm)	$\frac{15}{16}$ " (2.4 cm)
504-10	10" (25.4 cm)	$1\frac{1}{8}$ " (2.9 cm)
504-12	12" (30.5 cm)	$1\frac{5}{16}$ " (3.3 cm)
504-15	15" (38.1 cm)	$1\frac{11}{16}$ " (4.3 cm)
504-18	18" (45.7 cm)	$2\frac{1}{16}$ " (5.2 cm)

Also available with yellow plastic-dipped handles or high-dielectric orange plastic-dipped handles. To specify yellow plastic-dipped handles, add the prefix "D" before the catalog number (Example: D504-10). To specify high-dielectric handles, add the prefix "HD" before the catalog number (Example: HD504-10).

Order from your local distributor.

To better serve our customers, Klein Tools, Inc. has developed extensive national distribution through distributors. These distributors maintain a large stock of Klein tools and equipment in your own area and can fill your order rapidly. For the occasional item not in stock, our distributors receive prompt delivery from the factory. Order through your local distributor.

Combination Wrenches



Made of top quality alloy steel, nickel chrome plated. Open and 12-point box ends have the same size openings on each wrench. Open ends at standard 15° angle for working in confined areas. Box ends have 15° angle offset to provide clearance over obstructions.

Cat. No.	Opening	Length
68040	$\frac{5}{16}$ "	$4\frac{7}{32}$ "
68041	$\frac{11}{32}$ "	$4\frac{11}{16}$ "
68042	$\frac{3}{8}$ "	6 $\frac{5}{8}$ "
68043	$\frac{7}{16}$ "	7 $\frac{1}{4}$ "
68044	$\frac{1}{2}$ "	7 $\frac{25}{32}$ "
68045	$\frac{9}{16}$ "	8 $\frac{11}{32}$ "
68046	$\frac{5}{8}$ "	9"
68047	$1\frac{1}{16}$ "	9 $\frac{23}{32}$ "
68048	$\frac{3}{4}$ "	10 $\frac{15}{32}$ "
68049	$\frac{13}{16}$ "	11 $\frac{5}{32}$ "
68050	$\frac{7}{8}$ "	12 $\frac{3}{16}$ "
68051	$1\frac{5}{16}$ "	13 $\frac{1}{16}$ "
68052	1"	13 $\frac{15}{16}$ "
68053	$1\frac{1}{16}$ "	14 $\frac{27}{32}$ "
68054	$1\frac{1}{8}$ "	15 $\frac{23}{32}$ "
68055	$1\frac{1}{4}$ "	16 $\frac{1}{2}$ "



Combination Wrench Sets

Rugged, nickel-chrome-plated alloy steel wrenches supplied in convenient sets of seven or eleven wrenches. In heavy plastic roll-up pouches with grommets for hanging.

Cat. No.	Set Contains
68060	Seven wrenches (68042 thru 68048).
68062	Eleven wrenches (68042 thru 68052).



WRENCHES

Open-End Wrenches



Forged from the finest alloy steel. Nickel chrome plated. Both ends at standard 15° angle for working in confined areas.

Cat. No.	Small Opening	Large Opening	Length
68100	1 1/4"	5/16"	3 13/16"
68101	3/8"	7/16"	4 11/16"
68102	1/2"	9/16"	6 1/4"
68103	5/8"	1 1/16"	7 1/2"
68104	3/4"	1 3/16"	9 3/4"
68105	7/8"	1 5/16"	10 1/2"
68106	1"	1 7/8"	12 1/4"
68107	1 1/4"	1 15/16"	14 3/8"



Open-End Wrench Sets

Rugged, nickel-chrome-plated alloy steel wrenches above supplied in convenient sets of five or seven wrenches. In heavy plastic roll-up pouches with grommets for hanging.

Cat. No.	Set Contains
68120	Five wrenches (68101 thru 68105).
68122	Seven wrenches (68100 thru 68106).

Ratcheting Box Wrenches



Designed for use in confined spaces and on long studs. Laminated construction gives greater strength. Chrome-plated finish. In single and double hex. Different size openings at each end.

Single Hex

Cat. No.	Openings	Length
68200	1/4" x 5/16"	4 1/4"
68201	3/8" x 7/16"	5 1/2"

Double Hex

Cat. No.	Openings	Length
68202	1/2" x 9/16"	6 1/2"
68203	5/8" x 1 1/16"	8"
68204	3/4" x 3/4"	8"
68205	1 1/16" x 3/4"	9 1/4"
68206	1 3/16" x 7/8"	9 1/4"



Ratcheting Box Wrench Sets

Sets of the above wrenches in heavy plastic roll-up pouches. Three- and seven-piece sets.

Cat. No.	Set Contains
68220	Three wrenches (68201, 68202, 68203).
68222	Seven wrenches (68200 thru 68206).

For 44 pages of practical tips for professionals on using hand tools, see the booklet Proper use and care of Hand Tools, prepared by Klein Tools in conjunction with the Hand Tools Institute. Copies are available from Klein distributors.

Lineman's Wrenches



Standard type

Forged from special bar steel and heat treated. Each end has two different size openings. Hole is provided at larger end for turning-in standard pole steps. Wrench is particularly suited for use on the heavier three-bolt guy clamps on which clearance is limited. Wrench is 13" long. Available for 5/8" or 3/4" hardware.

Cat. No.	Description
3146	For 5/8" hardware. Large end has 1 1/32" and 29/32" openings. Small end has 13/16" and 5/8" openings. Dark blue painted finish.
3146A	For 3/4" hardware. Large end has 1 1/8" and 1 5/16" openings. Small end has 3/4" and 7/8" openings. Dark blue painted finish with small end painted white.



Bell System type

Similar to standard Lineman's Wrench above, but with end openings sized to meet NEMA hardware specifications. Overall length 13".

Cat. No.	Description
3146B	Large end has 1 1/8" and 1 1/16" openings. Small end has 1 1/16" and 7/8" openings. White painted finish.

Socket Wrenches

Klein socket wrenches are designed for long life and professional use—yet they are competitively priced. Made from alloy steel—forged, heat treated and tempered for tremendous strength and a hard, durable surface. Nickel chrome plated. Lightweight design with no excess metal in non-stress areas. Straight, thin sidewalls with tip and shoulder the same outside diameter lets sockets fit down all the way over nuts. Lock-button holes are drilled (not dented or dimpled) for a strong, positive hold.

Wrenches are available in complete sets or as individual pieces. Each set is packed in a strong, hinged, enameled metal box with a fixed metal divider for sockets.



Socket Wrenches CONT'D



16-piece 1/4-inch Drive Set

Set consists of the following pieces:
Nine 6-point sockets: $\frac{3}{16}$ ", $\frac{7}{32}$ ", $\frac{1}{4}$ ", $\frac{9}{32}$ ", $\frac{5}{16}$ ", $\frac{11}{32}$ ", $\frac{3}{8}$ ", $\frac{7}{16}$ " and $\frac{1}{2}$ ".

Three 10-point sockets to fit both square and hex nuts: $\frac{1}{4}$ ", $\frac{5}{16}$ " and $\frac{3}{8}$ ".

Extension: 2" long.

Reversible ratchet: $4\frac{3}{4}$ " long.

Plastic-handle spinner.

Hinged metal box.

Cat. No.	Description
65001	Complete 16-pc. $\frac{1}{4}$ " Drive Set in metal box.

Standard 6-point Sockets, 1/4-inch Drive

Cat. No.	Opening
65010	$\frac{3}{16}$ "
65011	$\frac{7}{32}$ "
65012	$\frac{1}{4}$ "
65013	$\frac{9}{32}$ "
65014	$\frac{5}{16}$ "
65015	$\frac{11}{32}$ "
65016	$\frac{3}{8}$ "
65017	$\frac{7}{16}$ "
65018	$\frac{1}{2}$ "

Standard 10-point Sockets, 1/4-inch Drive

Cat. No.	Opening
65031	$\frac{1}{4}$ "
65032	$\frac{5}{16}$ "
65034	$\frac{3}{8}$ "

1/4-inch Drivers and Extensions

Cat. No.	Description
65060	$4\frac{3}{4}$ " Reversible Ratchet.
65062	2" Extension.
65063	6" Extension.
65066	Plastic Handle Spinner.



10-piece 3/8-inch Drive Set

Set consists of the following pieces:

Four 6-point sockets: $\frac{5}{8}$ ", $\frac{7}{16}$ ", $\frac{1}{2}$ " and $\frac{9}{16}$ ".

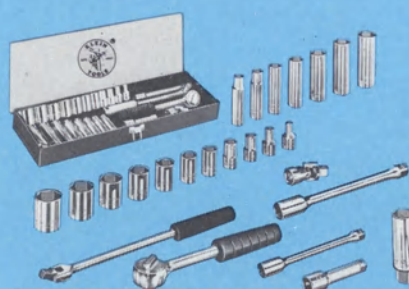
Three 12-point sockets: $\frac{5}{8}$ ", $\frac{11}{16}$ " and $\frac{3}{4}$ ".

Extension: 5" long.

Reversible ratchet with rubber grip: 7" long.

Hinged metal box.

Cat. No.	Description
65101	Complete 10-pc. $\frac{3}{8}$ " Drive Set in metal box.



26-piece 3/8-inch Drive Set

Set consists of the following pieces:
Six 6-point sockets: $\frac{1}{4}$ ", $\frac{5}{16}$ ", $\frac{3}{8}$ ", $\frac{7}{16}$ ", $\frac{1}{2}$ ", and $\frac{9}{16}$ ".

Five 12-point sockets: $\frac{5}{8}$ ", $\frac{11}{16}$ ", $\frac{3}{4}$ ", $\frac{13}{16}$ " and $\frac{7}{8}$ ".

Seven 6-point deep sockets: $\frac{3}{8}$ ", $\frac{7}{16}$ ", $\frac{1}{2}$ ", $\frac{9}{16}$ ", $\frac{5}{8}$ ", $\frac{11}{16}$ " and $\frac{3}{4}$ ".

Spark plug socket: $\frac{13}{16}$ ".

Three extensions: 3", 5" and 8" long.

Flex handle with rubber grip: 10" long.

Reversible ratchet with rubber grip: 7" long.

Universal joint.

Cat. No.	Description
65104	Complete 26-pc. $\frac{3}{8}$ " Drive Set in metal box.

Standard 6-point Sockets, 3/8-inch Drive

Cat. No.	Opening
65108	$\frac{1}{4}$ "
65109	$\frac{5}{16}$ "
65110	$\frac{3}{8}$ "
65111	$\frac{7}{16}$ "
65112	$\frac{1}{2}$ "
65113	$\frac{9}{16}$ "

Standard 12-point Sockets, 3/8-inch Drive

Cat. No.	Opening
65134	$\frac{5}{8}$ "
65135	$\frac{11}{16}$ "
65136	$\frac{3}{4}$ "
65137	$\frac{13}{16}$ "
65138	$\frac{7}{8}$ "

Deep 6-point Sockets, 3/8-inch Drive

Cat. No.	Opening
65150	$\frac{3}{8}$ "
65151	$\frac{7}{16}$ "
65152	$\frac{1}{2}$ "
65153	$\frac{9}{16}$ "
65154	$\frac{5}{8}$ "
65155	$\frac{11}{16}$ "
65156	$\frac{3}{4}$ "

3/8-inch Drivers and Extensions

Cat. No.	Description
65170	7" Reversible Ratchet with rubber grip.
65173	3" Extension.
65174	5" Extension.
65175	8" Extension.
65180	10" Flex Handle with rubber grip.
65158	$\frac{13}{16}$ " Spark Plug Socket.
65185	Universal Joint.

Order from your local distributor.

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WRENCHES

Socket Wrenches CONT'D



16-piece 1/2-inch Drive Set

Set consists of the following pieces:
 Twelve 12-point sockets: $\frac{1}{16}$ " $\frac{1}{8}$ " $\frac{1}{4}$ " $\frac{3}{8}$ " $\frac{1}{2}$ " $\frac{5}{8}$ " $\frac{3}{4}$ " $\frac{7}{8}$ " $1\frac{1}{8}$ " $1\frac{1}{4}$ " $1\frac{1}{2}$ " and $1\frac{3}{4}$ ".
 Spark plug socket: $1\frac{3}{8}$ ".
 Extension: 5" long.
 Reversible ratchet with rubber grip: $10\frac{1}{2}$ " long.
 Hinged metal box.

Cat. No.	Description
65201	Complete 16-pc. $\frac{1}{2}$ " Drive Set in metal box.

Standard 12-point Sockets, 1/2-inch Drive

Cat. No.	Opening
65220	$\frac{3}{8}$ "
65221	$\frac{7}{16}$ "
65222	$\frac{1}{2}$ "
65223	$\frac{9}{16}$ "
65224	$\frac{5}{8}$ "
65225	$1\frac{1}{16}$ "
65226	$\frac{3}{4}$ "
65227	$1\frac{1}{8}$ "
65228	$\frac{7}{8}$ "
65229	$1\frac{1}{16}$ "
65230	1"
65231	$1\frac{1}{8}$ "
65232	$1\frac{1}{4}$ "
65234	$1\frac{3}{4}$ "

1/2-inch Drivers and Extensions

Cat. No.	Description
65280	$10\frac{1}{2}$ " Reversible Ratchet with rubber grip.
65283	5" Extension.
65284	10" Extension.
65290	18" Flex Handle with rubber grip.
65258	$\frac{13}{16}$ " Spark Plug Socket.
65295	Universal Joint.

Renewal Ratchet Drives



Complete units to renew drives in reversible ratchets are available in $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " sizes.

Cat. No.	Size
65440	$\frac{1}{4}$ "
65445	$\frac{3}{8}$ "
65450	$\frac{1}{2}$ "

Refrigeration Wrenches



Fully Reversible Ratchet

A fully reversible ratchet wrench designed for refrigeration packing gland nuts and valve stem sockets. Also designed for beam-clamp installation. The wrench is compact in size, with clearly marked sockets for four nut sizes: $\frac{3}{8}$ ", $\frac{1}{4}$ ", $\frac{5}{16}$ " and $\frac{3}{8}$ ". A quick-flip reversing lever permits instant ratchet reversal. Wrench is ruggedly built and has polished chrome finish with smooth edges for comfortable working.

Cat. No.	Length
68310	5 $\frac{1}{2}$ "



Non-reversible Ratchet

Designed for shut-off valves, packing gland nuts, work on compressors, pumps, etc. Four openings on each wrench, one ratchet and three fixed. Chrome plated.

Cat. No.	4 Pt. Ratchet Opening	Fixed Openings	Length
		4 Pt. 6 Pt.	
68216	$\frac{1}{4}$ "	$\frac{3}{16}$ "- $\frac{1}{4}$ " $\frac{1}{2}$ "	6"
68217	$\frac{5}{16}$ "	$\frac{3}{16}$ "- $\frac{5}{16}$ " $\frac{1}{2}$ "	6"
68218	$\frac{3}{8}$ "	$\frac{3}{16}$ "- $\frac{1}{4}$ " $\frac{1}{2}$ "	6"



Reversible Ratchet

Ratchet box on one end, fixed box on the other. Designed for refrigeration servicemen and others faced with the necessity of working in a limited area. Ratchet action is smooth and requires minimum handle movement. One ratchet opening, three fixed openings. Chrome plated.

Cat. No.	4 Pt. Ratchet Opening	Fixed Openings	Length
		4 Pt. 6 Pt.	
68215	$\frac{1}{4}$ "	$\frac{3}{16}$ "- $\frac{1}{4}$ " $\frac{1}{2}$ "	6"



Open-End Flare Nut

Designed for tube fitting applications such as vacuum, hydraulic, refrigeration and fuel lines used on automotive, truck, road machinery and industrial equipment. With chamfered openings and high-clearance heads for maximum ease of use. Wrench ends are extra thick to avoid damage to soft metal fittings. Chrome plated for long life.

12 Point—30° Openings

Cat. No.	Openings	Length
68000	$\frac{3}{8}$ " and $\frac{1}{4}$ "	5 $\frac{1}{16}$ "
68001	$\frac{1}{2}$ " and $\frac{9}{16}$ "	6 $\frac{1}{2}$ "
68002	$\frac{5}{8}$ " and $1\frac{1}{16}$ "	7 $\frac{5}{16}$ "
68003	$\frac{3}{4}$ " and $\frac{7}{8}$ "	8"

12 Point—7 $\frac{1}{2}$ ° Openings

Cat. No.	Openings	Length
68004	$\frac{3}{4}$ " and 1"	8"
68005	$\frac{5}{8}$ " and $1\frac{1}{16}$ "	9 $\frac{1}{2}$ "
68006	$\frac{7}{8}$ " and 1"	9 $\frac{1}{2}$ "
68007	$\frac{7}{8}$ " and $1\frac{1}{8}$ "	9 $\frac{1}{2}$ "
68008	$1\frac{1}{16}$ " and $1\frac{1}{8}$ "	8 $\frac{3}{4}$ "
68009	$1\frac{1}{16}$ " and $1\frac{1}{4}$ "	10 $\frac{1}{4}$ "

Order from your local distributor.

Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.

Hex Keys

Folding Hex Key Sets

These handy sets fit your pocket or tool box easily and help eliminate the lost-key problem. Tough, heat-treated chrome-nickel alloy steel. Wrench ends are square cut and chamfered for easy insertion and secure fit. Holder serves as a handle. Wrenches can be used straight out or at a right angle for extra leverage. Convenient sets include sizes to fit hex openings from .050" to 3/8".



Five-key Set: Sizes 3/16", 1/32", 1/4", 5/16", and 3/8".

Cat. No.	Handle Length	Key Lengths
68702	5 1/4"	3 3/8" to 4 3/8"



Nine-key Set: Sizes 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", and 1/4".

Cat. No.	Handle Length	Key Lengths
68701	4 1/4"	1 1/16" to 3 1/2"



Eight-key Set: Sizes .050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", and 5/32".

Cat. No.	Handle Length	Key Lengths
68700	3"	1 1/16" to 2 3/8"

T-Handle Hex Keys

T-handle design provides greater leverage for maximum torque. Strong, heat-treated chrome-nickel alloy steel. Precision drawn to close tolerances for accurate fit. Ends are square cut and chamfered for easy insertion and secure fit. Available in 6" and 9" arm lengths. Individual keys in sizes to fit hex openings from 3/32" to 3/8". T-handle key sets include sizes from 3/32" to 1/4".



Individual 6-inch T-handle Hex Keys.

Cat. No.	Hex Size	Cat. No.	Hex Size
68606	3/32"	68612	3/16"
68607	7/64"	68614	7/32"
68608	1/8"	68616	1/4"
68609	9/64"	68620	5/16"
68610	5/32"	68624	3/8"



Individual 9-inch T-handle Hex Keys.

Cat. No.	Hex Size	Cat. No.	Hex Size
68906	3/32"	68912	3/16"
68907	7/64"	68914	7/32"
68908	1/8"	68916	1/4"
68909	9/64"	68920	5/16"
68910	5/32"	68924	3/8"

NEW



Set of Eight T-handle Hex Keys, 6-inch length. In durable clear plastic pouch with snap flaps at each end. Set consists of Numbers 68606 through 68616 for hex openings from 3/32" to 1/4". (T-handle keys for 5/16" and 3/8" openings must be ordered separately.)

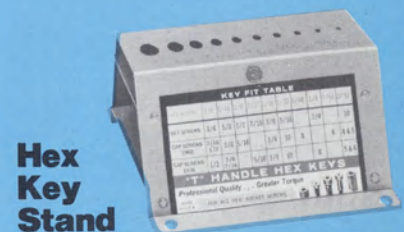
Cat. No.	Description
68601	Set of Eight 6" T-handle Keys.

NEW



Set of Eight T-handle Hex Keys, 9-inch length. In durable clear plastic pouch with snap flaps at each end. Set consists of Numbers 68906 through 68916 for hex openings from 3/32" to 1/4". (T-handle keys for 5/16" and 3/8" openings must be ordered separately.)

Cat. No.	Description
68901	Set of Eight 9" T-handle Keys.



Hex Key Stand

This sturdy, stable metal stand holds up to 10 T-handle hex keys, 6" or 9" length. Big, easy-to-read chart on side makes key selection easy. Stand keeps keys in order and readily available. Measures 5 3/4" long, 4 1/8" wide, 3 1/8" high.

Cat. No.	Description
369	Hex Key Stand



SCREWDRIVERS

Introduction

Klein screwdrivers are designed for the professional tradesman who wants and needs something better than an ordinary commercial screwdriver. They give you the extra-quality features that have made the Klein name famous for hand tools—features that assure greater convenience, comfort and efficiency in use, plus exceptional strength and durability. Klein screwdrivers feel right and work right...and meet the most demanding requirements.

All Klein drivers are made of the highest quality tempered steel, carefully heat treated for maximum strength. Shafts will not bend or twist in normal use. Shafts have integral flanges that provide an extra-strong, torque-proof anchor in the handle. Strong, durable tips are precision ground with square edges to fit screw openings securely.

Klein screwdriver handles are designed for comfort, durability and ease of use. They are made of unusually tough, shock-resistant, transparent amber plastic and shaped to provide a firm, comfortable grip. No-roll design makes them stay where you put them. Smooth, semi-rounded heels fit the palm comfortably for the application of extra power when you need it.

Klein Cushion-Grip screwdrivers feature a super-comfortable, sure-grip, rubber-covered handle on a top-quality tool for the professional. Klein Industrial screwdrivers with oversize "Manhandles" also meet every professional requirement, but with greater economy. Both types are made to give you superior performance.

Klein screwdrivers and awls are listed and described in the following order:

Cushion-Grip Screwdrivers
Industrial Screwdrivers
Specialty Screwdrivers
Scratch Awls

You...and OSHA...and Klein Tools.

Safety on the job and efficient work are two things everybody wants, employer and employee alike. Here's exactly what the Occupational Safety and Health Act of 1970 says about hand tools:

(Part 1926, Subpart I—Tools—Hand and Power.)

Section 1926.301 Hand tools.

"(a) Employers shall not issue or permit the use of unsafe hand tools.

"(b) Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs.

"(c) Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.

"(d) The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool."

The OSHA requirements for hand tools also say that no matter who owns or supplies the tools, they must be maintained in safe condition.

Safe tools are efficient tools. Worn out or broken tools aren't safe and they're not efficient. They can be dangerous to the user and those working near him. Worn tools should be repaired or replaced as required.

The cost of a new tool is small when compared to an injury or lost time or substandard performance.

The right screwdriver for every job.

The professional requires a number of screwdrivers in a variety of sizes and types. The right driver is necessary for the fast, efficient driving and removal of screws in any kind of material. The wrong size driver—too short or too long—or a driver with a point that doesn't fit the screw properly can waste time and make trouble.

Using screwdrivers.

The basic rule, of course, is to fit the tool to the work. The size of the screw and the type of opening it has determine which driver you use. Slotted screws, Phillips screws, Robertson screws and others come in many sizes and lengths. And there are drivers to fit all of them. But there are a few tips on how to use a driver that we can all benefit from—because screwdrivers are the most often misused and abused hand tools of all.

1. Never use a driver to do another tool's job.

Using a driver as a pry bar, or a scraper, or a chisel can ruin the tool and spoil the work, not to mention the time you might lose or injury you might sustain. Limit screwdrivers to screws.

2. Never push a driver beyond its capacity.

Make a pilot hole for the screw and your work will go more easily. Use a square-shank driver for heavy work requiring the use of a wrench to help do the turning.

3. Never expose a driver to excessive heat.

Direct flame can draw the temper from the metal, weakening and possibly warping it, making it unsafe and inefficient to use.

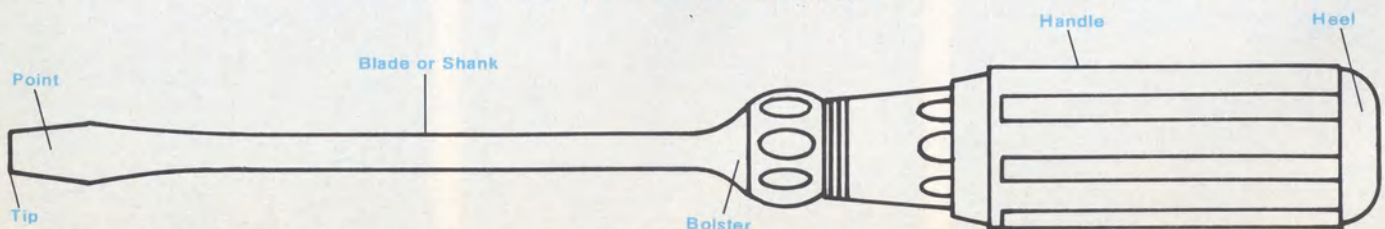
4. Never use a driver at an angle to the screw.

Always keep the shank perpendicular to the screw head. This is as important as using a driver with a point that fills the screw opening. Driving at an angle to the screw or using a too-small point can spoil the screw and also slip and damage the work.

Repair or replace?

Attempts to repair most types of drivers are *not recommended*. The tip of slotted-screw drivers can be dressed on a bench grinder, but care must be taken not to let the tip get too hot. (If it gets hot to the touch, the temper (hardness) has been drawn and the tip will no longer stand up well.) Drivers with cracked handles, bent or twisted shafts, or worn tips should be discarded and replaced.

The parts of a screwdriver.





Cushion-Grip Screwdrivers

Klein Cushion-Grip screwdrivers are the best for any job. These exceptionally strong drivers are made of carefully heat-treated and tempered steel to permit the use of 50% greater torque. Bolster on blade at handle provides added strength and rigidity for heavy-duty Cushion-Grip screwdrivers. Blades and tips are fully chrome plated. The handle grip is super comfortable and never hurts the hand. A sleeve of genuine Nitrile rubber makes the difference. This soft, smooth, black rubber grip interlocks permanently with a slotted plastic handle. Its deep-ribbed design and cushioning action permit the use of maximum turning power without discomfort. Rubber grip is resistant to oil, gas and water.



Deluxe Cushion-Grip screwdrivers are designed for extra-long, dependable service and unbeatable comfort.

The comfortable rubber grip is locked around a solid plastic handle. Grip extends up to handle end.

Shank has integral flanges to provide a solid, torque-proof anchor deep in the plastic handle.

Special bolster construction reinforces screwdriver against hard use.

Fully chrome-plated blade and tip.



Heavy-duty Square-shank

Designed for the most demanding uses. With heavy square shank for wrench-assisted turning.

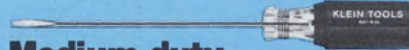
Cat. No.	Blade Dia. x Length	Overall Length
600-1	$\frac{1}{4}$ x $1\frac{1}{2}$ (0.6x3.8)	$3\frac{1}{16}$ (8.7)
600-4	$\frac{1}{4}$ x 4 (0.6x10.2)	$8\frac{1}{32}$ (21.2)
600-6	$\frac{5}{16}$ x 6 (0.8x15.2)	$10\frac{15}{16}$ (27.8)
600-8	$\frac{3}{8}$ x 8 (1.0x20.3)	$13\frac{1}{16}$ (34.1)
600-12	$\frac{3}{8}$ x 12 (1.0x30.5)	$17\frac{1}{16}$ (44.3)



Heavy-duty Round-shank

Built to handle the tough jobs with ease.

Cat. No.	Blade Dia. x Length	Overall Length
602-3	$\frac{7}{32}$ x 3 (0.6x7.6)	$6\frac{3}{4}$ (17.1)
602-4	$\frac{1}{4}$ x 4 (0.6x10.2)	$8\frac{1}{32}$ (21.2)
602-6	$\frac{5}{16}$ x 6 (0.8x15.2)	$10\frac{15}{16}$ (27.8)
602-8	$\frac{3}{8}$ x 8 (1.0x20.3)	$13\frac{1}{16}$ (34.1)
602-10	$\frac{3}{8}$ x 10 (1.0x25.4)	$15\frac{1}{16}$ (39.2)
602-12	$\frac{3}{8}$ x 12 (1.0x30.5)	$17\frac{1}{16}$ (44.3)



Medium-duty Round-shank

Perfect for electrical and telephone work.

Cat. No.	Blade Dia. x Length	Overall Length
601-3	$\frac{3}{16}$ x 3 (0.5x7.6)	$6\frac{3}{4}$ (17.1)
601-4	$\frac{3}{16}$ x 4 (0.5x10.2)	$7\frac{3}{4}$ (19.7)
601-6	$\frac{3}{16}$ x 6 (0.5x15.2)	$9\frac{3}{4}$ (24.8)
601-8	$\frac{3}{16}$ x 8 (0.5x20.3)	$11\frac{3}{4}$ (29.8)
601-10	$\frac{3}{16}$ x 10 (0.5x25.4)	$13\frac{3}{4}$ (34.9)



Phillips-head Round-shank

In four convenient sizes, including a stubby (No. 603-1) for work in close quarters.

Cat. No.	Point Size	Blade Length	Overall Length
603-1	#2	$1\frac{1}{4}$ (3.1)	$3\frac{3}{8}$ (7.9)
603-3	#1	3 (7.6)	$6\frac{3}{4}$ (17.1)
603-4	#2	4 (10.2)	$8\frac{3}{4}$ (22.2)
603-6	#3	6 (15.2)	11 (27.9)



Electrician's Cabinet-point

With round shank and tip no wider than shank diameter for use in recessed holes and other tight spaces.

Cat. No.	Blade Dia. x Length	Overall Length
605-4	$\frac{1}{4}$ x 4 (0.6x10.2)	$8\frac{1}{32}$ (21.2)
605-6	$\frac{1}{4}$ x 6 (0.6x15.2)	$10\frac{1}{32}$ (26.3)



Robertson Square-tip

Similar to standard Cushion-Grip screwdrivers. Round shank with special tip for Robertson square screws. Handle ends color coded for easy selection of correct point sizes for screw sizes 3 through 14.

Cat. No.	Point Size	Color Code	For Screw Sizes
660	#0	Yellow	3 and 4
661	#1	Green	5, 6, 7
662	#2	Red	8, 9, 10
663	#3	Black	12 and 14

All dimensions on this page are in inches and (centimeters).



SCREWDRIVERS

Cushion-Grip Screwdrivers CONT'D



Heavy-duty Round-shank with insulated blade

These standard heavy-duty Cushion-Grip drivers have the complete blade insulated with an extremely hard, tough plastic material. Resists cutting, cracking and chipping. Insulation has excellent dielectric properties, but is intended for secondary protection only. Dipped coating is thin enough to permit use in confined areas. Tip is exposed $\frac{1}{8}$ " (0.3 cm) beyond insulation. Available with both regular and narrow blades for all types of electrical and telephone applications, such as switchboard work.

Regular-blade Insulated Drivers

Cat. No.	Blade Dia. x Length	Overall Length
620-3	$\frac{3}{32}$ x $2\frac{1}{4}$ (0.7x7.0)	6 $\frac{1}{2}$ (16.5)
620-4	$\frac{1}{4}$ x $3\frac{3}{4}$ (0.6x9.5)	8 $\frac{3}{32}$ (20.6)
620-6	$\frac{5}{16}$ x $5\frac{1}{4}$ (0.8x14.6)	10 $\frac{1}{16}$ (27.2)
620-8	$\frac{3}{8}$ x $7\frac{1}{4}$ (1.0x19.7)	13 $\frac{3}{16}$ (33.5)

Narrow-blade Insulated Drivers

Cat. No.	Blade Dia. x Length	Overall Length
621-6	$\frac{3}{16}$ x $5\frac{1}{4}$ (0.5x14.6)	9 $\frac{1}{2}$ (24.1)
621-8	$\frac{3}{16}$ x $7\frac{1}{4}$ (0.5x19.7)	11 $\frac{1}{2}$ (29.2)
621-10	$\frac{3}{16}$ x $9\frac{1}{4}$ (0.5x24.8)	13 $\frac{1}{2}$ (34.3)



"Speeddrivers"

Easy, one-hand crank action speeds up many jobs. The shank rotates in the handle to turn the screw. Ideal for use on long-threaded screws in switch plates, light fixtures, etc. Available with both cabinet-point and Phillips-head tips.

Cabinet-point "Speeddrivers"

Cat. No.	Blade Dia. x Length	Overall Length
670-3	$\frac{3}{16}$ x 3 (0.5x7.6)	6 $\frac{1}{2}$ (16.8)
670-6	$\frac{3}{16}$ x 6 (0.5x15.2)	9 $\frac{1}{2}$ (24.5)
671-4	$\frac{1}{4}$ x 4 (0.6x10.2)	7 $\frac{1}{2}$ (19.4)
671-6	$\frac{1}{4}$ x 6 (0.6x15.2)	9 $\frac{1}{2}$ (24.5)

Phillips-head "Speeddrivers"

Cat. No.	Point Size	Blade Length	Overall Length
673-3	#1	3 (7.6)	6 $\frac{1}{2}$ (16.8)
673-6	#1	6 (15.2)	9 $\frac{1}{2}$ (24.5)
672-4	#2	4 (10.2)	7 $\frac{1}{2}$ (19.4)
672-6	#2	6 (15.2)	9 $\frac{1}{2}$ (24.5)

Industrial Screwdrivers

Klein Industrial Screwdrivers meet professional standards for many applications. They are made of the highest quality tempered steel and heat treated for great strength. Amber plastic handles have distinctive black trim. Many sizes feature Klein "Manhandles" which are longer and have a bigger diameter to provide a firmer, more comfortable grip. These handles permit the application of greater torque with less effort.

Klein screwdriver with "Manhandle."



Screwdriver with regular handle.



Heavy-duty Square-shank NEW

Square shank for wrench-assisted turning. Oversize Klein "Manhandles" on 4" and 6" sizes. Other sizes have regular-size heavy-duty handles.

Cat. No.	Blade Dia. x Length	Overall Length
19430	$\frac{1}{4}$ x 4 (0.6x10.2)	8 $\frac{1}{2}$ (21.6)
19431	$\frac{5}{16}$ x 6 (0.8x15.2)	11 (27.9)
19432	$\frac{3}{8}$ x 8 (1.0x20.3)	13 (33.0)
19433	$\frac{3}{8}$ x 10 (1.0x25.4)	15 (38.1)
19434	$\frac{3}{8}$ x 12 (1.0x30.5)	17 (43.2)



Heavy-duty Round-shank NEW

Oversize Klein "Manhandles" on 3", 4" and 6" sizes. Other sizes have regular-size heavy-duty handles.

Cat. No.	Blade Dia. x Length	Overall Length
19420	$\frac{1}{4}$ x $1\frac{1}{2}$ (0.6x3.8)	3 $\frac{1}{2}$ (8.9)
19421	$\frac{3}{32}$ x 3 (0.6x7.6)	6 $\frac{1}{4}$ (17.2)
19422	$\frac{1}{4}$ x 4 (0.6x10.2)	8 $\frac{1}{2}$ (21.6)
19423	$\frac{5}{16}$ x 6 (0.8x15.2)	11 (27.9)
19424	$\frac{3}{8}$ x 8 (1.0x20.3)	13 (33.0)
19425	$\frac{3}{8}$ x 10 (1.0x25.4)	15 (38.1)
19426	$\frac{3}{8}$ x 12 (1.0x30.5)	17 (43.2)



Light-duty Round-shank NEW

Regular-size handles; comfortable working size for blade diameter.

Cat. No.	Blade Dia. x Length	Overall Length
19410	$\frac{3}{16}$ x 3 (0.5x7.6)	6 $\frac{1}{2}$ (16.5)
19411	$\frac{3}{16}$ x 4 (0.5x10.2)	7 $\frac{1}{2}$ (19.1)
19412	$\frac{3}{16}$ x 6 (0.5x15.2)	9 $\frac{1}{2}$ (24.1)
19413	$\frac{3}{16}$ x 8 (0.5x20.3)	11 $\frac{1}{2}$ (29.2)
19414	$\frac{3}{16}$ x 10 (0.5x25.4)	13 $\frac{1}{2}$ (34.3)



Phillips-head Round-shank NEW

Oversize Klein "Manhandles" on 3", 4" and 6" sizes. Other sizes have regular heavy-duty handles. In five sizes, including a stubby (No. 19440) for close quarters.

Cat. No.	Point Size	Blade Length	Overall Length
19440	#2	1 $\frac{1}{2}$ (3.8)	3 $\frac{1}{2}$ (8.9)
19441	#1	3 (7.6)	6 $\frac{1}{4}$ (17.1)
19442	#2	4 (10.2)	8 $\frac{1}{2}$ (21.6)
19443	#3	6 (15.2)	11 (27.9)
19444	#4	8 (20.3)	13 (33.0)



Light-duty Cabinet-point NEW

With round shank and tip no wider than shank diameter for use in recessed holes and tight spaces. Especially suited to electronic assembly and electrical installation work. Tip is specially heat treated for extra strength. Regular-size handles correctly matched to narrow blades.

Cat. No.	Blade Dia. x Length	Overall Length
19401	$\frac{1}{8}$ x 3 (0.3x7.6)	5 $\frac{1}{4}$ (14.6)
19402	$\frac{1}{8}$ x 4 (0.3x10.2)	6 $\frac{1}{4}$ (17.1)
19403	$\frac{1}{8}$ x 6 (0.3x15.2)	8 $\frac{1}{4}$ (22.2)
19404	$\frac{1}{8}$ x 8 (0.3x20.3)	10 $\frac{1}{4}$ (27.3)



Specialty Screwdrivers



NEW Instrument Screwdriver

This "midget" driver is specially designed for delicate instrument work. Fluted, hexagon-shaped handle of tough, amber plastic.

Cat. No.	Blade Dia. x Length	Overall Length
19450	$\frac{3}{32}$ x1 $\frac{1}{2}$ (0.2x3.8)	3 (7.6)



NEW Pocket Screwdriver

Small but strong, this handy driver clips to your shirt pocket. Fluted amber plastic handle with black trim.

Cat. No.	Blade Dia. x Length	Overall Length
19451	$\frac{1}{8}$ x2 (0.3x5.1)	4 $\frac{3}{4}$ (11.1)



Folding Screwdriver Set

A pocket-size combination tool with heat-treated chrome-nickel alloy steel blades. All five blades fold flat into handle; can be used straight out or at a right angle for extra leverage. Contains $\frac{1}{8}$ " (0.3 cm), $\frac{3}{16}$ " (0.5 cm), and $\frac{1}{4}$ " (0.6 cm) standard blades; No. 2 Phillips blade; and $\frac{3}{16}$ " (0.5 cm) awl.

Cat. No.	Handle Length	Blade Lengths
68705	3 $\frac{3}{8}$ (9.2)	2 $\frac{3}{8}$ to 3 (6.0 to 7.6)

All dimensions on this and facing page in inches and (centimeters).



Screw-holding Screwdrivers

This convenient tool not only holds and starts slot-head screws, it drives and sets them tight. Strong, "split" tip expands to grip many sizes of screws. Does not mar screw slot. Permits one-hand operation in hard-to-reach places. Tough plastic handle.

Cat. No.	Blade Dia.	Overall Length
612-3	$\frac{1}{8}$ (0.3)	5 (12.7)
611-4	$\frac{3}{16}$ (0.5)	8 (20.3)
611-6	$\frac{3}{16}$ (0.5)	10 (25.4)
611-8	$\frac{3}{16}$ (0.5)	12 (30.5)



Spiral Ratchet Screwdriver

Saves time and effort. Extends driver reach. Heavy-duty design. Forward and reverse ratchet drive plus manual. Quick-return spring keeps blade in the screw, automatically returns handle to driving position after each stroke. Smooth plastic handle. With $\frac{1}{32}$ " (0.6 cm) and $\frac{3}{32}$ " (0.7 cm) standard bits and No. 2 size Phillips bit.

Cat. No.	Overall Length, Bit Extended
64000	20 $\frac{1}{4}$ (51.4)

Replacement Bit Set. Two standard and one Phillips bit in sizes above.

Cat. No.	Description
64001	Replacement Bit Set



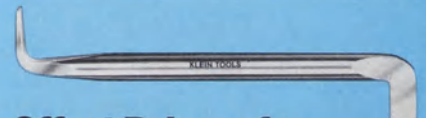
Spiral Ratchet Screwdriver and Drill

This handy, compact tool does double duty as a driver and a drill. Ideal for use in confined spaces. Forward and reverse ratchet drive plus manual. Quick-return spring keeps bit in work, automatically returns handle to driving position after each stroke. Strong, clear plastic handle holds bits. With $\frac{1}{4}$ " (0.6 cm) and $\frac{5}{32}$ " (0.4 cm) standard driver bits and $\frac{7}{64}$ " (0.3 cm) and $\frac{9}{64}$ " (0.4 cm) drill bits.

Cat. No.	Overall Length, Bit Extended
64010	8 (20.3)

Five-piece Driver Bit and Drill Bit Set. Two driver bits, $\frac{3}{32}$ " (0.4 cm) standard and No. 2 size Phillips. Three drill bits, $\frac{5}{64}$ " (0.2 cm), $\frac{7}{64}$ " (0.3 cm), and $\frac{9}{64}$ " (0.4 cm).

Cat. No.	Description
64011	5-pc. Driver Bit and Drill Bit Set



Offset Drivers for slotted screws NEW

Made of forged hexagon bar steel for heavy-duty service. Offset design for use in tight spaces. Precision-ground blades at 90° angle to handle.

Cat. No.	Tip Thickness	Tip Width	Overall Length
19452	.030 (0.08)	$\frac{3}{16}$ (0.5)	3 (7.6)
19454	.041 (0.1)	$\frac{1}{32}$ (0.9)	5 (12.7)



Offset Driver for Phillips screws NEW

Forged steel, round shaft. No. 1 Phillips point on one end, No. 2 Phillips point on the other.

Cat. No.	Point Sizes	Blade Dia.	Overall Length
19456	#1 and #2	$\frac{1}{4}$ (0.6)	4 (10.2)



Combination Offset Driver, slotted and Phillips NEW

Forged steel, round shaft. No. 2 Phillips point on one end, slot-head tip on the other, both at 90° angle to handle.

Cat. No.	Point Size	Blade Dia.	Overall Length
19457	#2	$\frac{1}{4}$ (0.6)	4 (10.2)

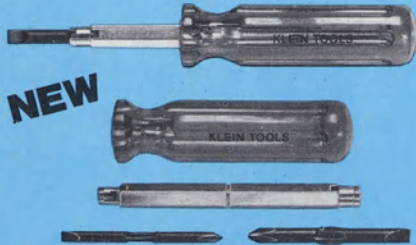
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SCREWDRIVERS/AWLS/NUT DRIVERS

Specialty Screwdrivers CONT'D



Reversible Four-way Screwdriver

This space-saving, time-saving tool lets you drive slotted and Phillips screws with a single handle. Reversible shaft holds screwdriver bits in both ends, locks securely into handle. Two reversible steel bits—each with slot-head and Phillips-head tips—lock snugly into shaft ends to provide snap-in, snap-out speed and convenience. Bits for No. 1 and No. 2 Phillips sizes and $\frac{3}{16}$ " (5 mm) and $\frac{1}{4}$ " (6 mm) standard slotted screw sizes. Strong, chrome-plated, hexagonal steel shaft. Red plastic handle, comfortably sized and fluted for efficient use.

Cat. No.	Blade Length	Overall Length
19500	3" (7.6 cm)	6 $\frac{1}{2}$ " (17.5 cm)

Scratch Awls



Cushion-Grip Awl

This professional, heavy-duty, hard-pointed awl scribes metal, starts screw holes, performs a variety of piercing and punching jobs. Rigid, tempered steel shaft has full reinforcing bolster at handle for extra strength. Flanged shaft is locked deep in full-sized amber plastic handle with rubber Cushion-Grip for maximum comfort.

Cat. No.	Blade Length	Overall Length
650	3 $\frac{1}{2}$ " (8.9 cm)	7" (17.8 cm)



Plastic-handle Awl

A rugged, heavy-duty tool for scribing, piercing and punching. Hard-pointed, bolstered shaft. Flanged shaft forms a strong, solid anchor in plastic handle. Oversize Klein "Manhandle" lets you apply maximum gripping power with comfort.

Cat. No.	Blade Length	Overall Length
19460	3 $\frac{1}{2}$ " (8.9 cm)	7 $\frac{1}{4}$ " (18.4 cm)

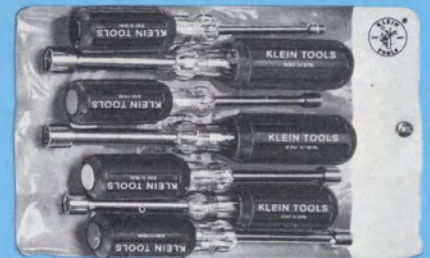
Nut Drivers



Cushion-Grip Nut Driver

The finest nut driver made. Rugged and solid from end to end. Amber plastic handle with rubber Cushion-Grip is comfortable, never hurts the hand; permits the use of maximum turning power without discomfort. Handle ends color coded for size identification. Strong hex head drives nuts and socket screws. Chrome-plated hollow shank permits turning nuts on long screws. In seven individual sizes or a complete set.

Cat. No.	Color Code	Hex Size	Shank Length
630- $\frac{3}{16}$	Black	$\frac{3}{16}$ "	3 $\frac{1}{8}$ "
630- $\frac{1}{4}$	Red	$\frac{1}{4}$ "	3 $\frac{1}{8}$ "
630- $\frac{5}{16}$	Yellow	$\frac{5}{16}$ "	3 $\frac{1}{8}$ "
630- $\frac{11}{32}$	Green	$\frac{11}{32}$ "	3 $\frac{1}{8}$ "
630- $\frac{3}{8}$	Blue	$\frac{3}{8}$ "	3 $\frac{1}{4}$ "
630- $\frac{7}{16}$	Brown	$\frac{7}{16}$ "	3 $\frac{1}{2}$ "
630- $\frac{1}{2}$	Red	$\frac{1}{2}$ "	3 $\frac{1}{2}$ "



Complete Cushion-Grip Nut Driver Set. Consists of all seven nut drivers listed above. Hex sizes $\frac{3}{16}$ " through $\frac{1}{2}$ ".

Cat. No.	Description
631	Complete Set of seven Nut Drivers.

Order from your local distributor.

To better serve our customers, Klein Tools, Inc. has developed extensive national distribution through distributors. These distributors maintain a large stock of Klein tools and equipment in your own area and can fill your order rapidly. For the occasional item not in stock, our distributors receive prompt delivery from the factory. Order through your local distributor.

For 44 pages of practical tips for professionals on using hand tools, see the booklet Proper use and care of Hand Tools, prepared by Klein Tools in conjunction with the Hand Tools Institute. Copies are available from Klein distributors.



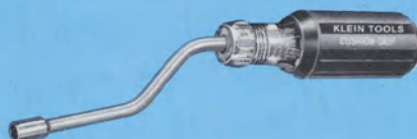
Nut Drivers CONT'D



Insulated Nut Driver

Entire shank insulated with hard, yellow plastic material. Amber plastic handle with the comfortable Klein Cushion-Grip. Handle ends color coded for size identification. Hex head drives nuts and socket screws; in eight sizes. Hollow shank for turning nuts on long screws.

Cat. No.	Color Code	Hex Size	Shank Length
640-3/16	Black	3/16"	3 1/8"
640-1/4	Red	1/4"	3 1/8"
640-5/16	Yellow	5/16"	3 1/8"
640-3/8	Blue	3/8"	3 1/4"
640-7/16	Brown	7/16"	3 1/2"
640-1/2	Red	1/2"	3 1/2"
640-9/16	Orange	9/16"	3 1/2"
640-5/8	Yellow	5/8"	3 1/2"



Spee-D-Nut Driver

One-hand crank action speeds up the job. The shank rotates in the handle for quicker, easier nut turning. Amber plastic handle with rubber Cushion-Grip. Hex head drives nuts and socket screws; in three sizes. Chrome-plated hollow shank for turning nuts on long screws.

Cat. No.	Hex Size	Overall Length
680-1/4	1/4"	7 3/4" (19.7 cm)
680-5/16	5/16"	7 3/4" (19.7 cm)
680-3/8	3/8"	8" (20.3 cm)



Drive-A-Matic Nut Driver

The single tool automatically fits many different nut and socket screw sizes. Eliminates hunting for the right driver. Hex head adjusts to the proper size as you turn it. Will drive or loosen hex nuts from 1/4" (6.4 mm) to 7/8" (11.1 mm) and hex-head screws from No. 6 to 1/4" (6.4 mm). Tough plastic handle with rubber comfort grip to protect hands, make turning easy.

Cat. No.	Overall Length
632	7" (17.8 cm)

Hammers

Caution:
Improper use of hammers can cause injury. For instructions on safe usage, see label on each hammer.



Electrician's Straight-claw

Designed specifically for use in electrical work. Correctly balanced. Extra-long neck, straight-claw and narrow striking face make it ideal for reaching into outlet boxes and other confined areas. Polished, drop-forged, tempered steel head. Shock-absorbent fiberglass handle for great strength and high dielectric properties. Comfortable, perforated neoprene grip permanently bonded to handle.

Cat. No.	Head Weight	Overall Length
807-18	18 oz. (510 g)	14" (35.6 cm)
817	Fiberglass Replacement Handle.	



Heavy-duty Straight-claw

Regular straight-claw design with drop-forged, tempered steel head, octagon shaped and polished. Fiberglass handle design prevents head from loosening even in the most severe use. Handle is strong, shock-absorbent and has high dielectric properties. Comfortable, perforated neoprene grip.

Cat. No.	Head Weight	Overall Length
808-16	16 oz. (454 g)	13" (33.0 cm)
808-20	20 oz. (567 g)	13" (33.0 cm)



Leather holders for Klein hammers are on page 53.

Order from your local distributor. Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.



Heavy-duty Curved-claw

Curved claw gives maximum leverage for pulling nails. Drop-forged, tempered steel head, octagon shaped and polished. Fiberglass handle design keeps the head tight under the hardest use. Strong, shock-absorbent, with high dielectric properties. Comfortable, perforated neoprene grip.

Cat. No.	Head Weight	Overall Length
818-16	16 oz. (454 g)	13" (33.0 cm)
818-20	20 oz. (567 g)	13" (33.0 cm)



Lineman's Double-face

Designed for pole-line work. Rugged and well-balanced, it has the weight to drive lag bolts. Drop-forged, tempered steel head only 3 3/4" long (9.5 cm) for use in confined areas. Identical faces with 1 1/4" (4.4 cm) round-crown driving surfaces, beveled to guard against chipping. Strong, shock-absorbent fiberglass handle with high dielectric properties. Comfortable, perforated neoprene grip.

Cat. No.	Head Weight	Overall Length
809-36	36 oz. (1021 g)	14" (35.6 cm)
817	Fiberglass Replacement Handle.	



Lineman's Straight-claw

Heavy-duty, double-duty—drives lags and pulls big nails. Special high-carbon steel head with solid, octagon-shaped driving end and thick, strong claw. Blue painted finish. Man-sized, straight-grain hickory handle, lacquered.

Cat. No.	Head Weight	Overall Length
832-32	32 oz. (907 g)	13 1/2" (34.3 cm)



HAMMERS/LEVELS/RULES

Hammers CONT'D



Ball Pein

High-carbon steel head, drop-forged and hardened. Crowned face with uniform bevel; specially tempered to minimize chipping. Smoothly rounded pein. Straight-grain hickory handle, stained and lacquered.

Cat. No.	Head Weight	Overall Length
803-8	8 oz. (227 g)	13" (33.0 cm)
803-12	12 oz. (340 g)	13½" (34.3 cm)
803-16	16 oz. (454 g)	14½" (36.8 cm)
803-24	24 oz. (680 g)	16" (40.6 cm)
803-32	32 oz. (907 g)	16" (40.6 cm)



Hand Drilling Hammer

Extra-heavy, drop-forged steel head, hardened and tempered. Short handle for working in close quarters. Select hickory handle, triple wedged and lacquered. Special process removes moisture from handle and replaces it with oil to eliminate effects of extreme temperatures and provide permanent tightness in the head.

Cat. No.	Head Weight	Overall Length
823-48	48 oz. (1361 g)	10¾" (27.3 cm)
848	Hickory Replacement Handle.	



Tinner's Setting Hammer

Designed for sheet metal work. Drop-forged steel head with polished face specially tempered to minimize chipping. Straight-grain hickory handle.

Cat. No.	Head Weight	Overall Length
824-12	12 oz. (340 g)	13" (33.0 cm)

Levels



Aluminum Torpedo Level

Lightweight, precision made and only 9" long for use in tight places. Three acrylic plastic vials—plumb, level and 45° mitre. All easily replaceable. Level vial is top reading also. Strong, smooth aluminum body with hang hole and magnetized strip on bottom.

Cat. No.	Body Size	Overall Length
930-9	1½"x¾" (3.8x1.6 cm)	9" (22.9 cm)



Magnesium Level

Professional quality. Smooth, rigid, I-beam magnesium body—lighter than aluminum. Three king-size vials of tough acrylic, larger than ordinary glass vials to provide maximum visibility and accuracy. Vials are barrel shaped for easy reading from any angle. Two plumb vials and one level vial are solid set and protected with glass windows. All are easily replaceable. Vials are interchangeable and also may be repositioned within vial opening for either plumb or level reading. With hang hole and large, smooth hand holes.

Cat. No.	Overall Length
933-24	24" (61.0 cm)
933-28	28" (71.1 cm)
933-48	48" (121.9 cm)



Magnesium Level with protractor

Has all the features of the rugged, lightweight No. 933-24 level above. With king-size, acrylic, glass-protected plumb and level vials, plus dial-adjustable protractor vial for accurate readings of any angle from 0° to 90°.

Cat. No.	Overall Length
932-24	24" (61.0 cm)

Folding Wood Rules



Standard Rules

Strong, hardwood rules, 6' long. Graduated on both edges in 16ths and inches. Stud markings indicated. Black numerals on yellow background. Special abrasion-resistant finish lasts at least 10 times longer than ordinary finishes. Non-stretching, permanently lubricated steel joints. Joints and protector strike plates are brass plated. Available in both inside and outside reading models.

Cat. No.	Reading	Length
900-6	Inside	6'
901-6	Outside	6'



Metric-English Standard Rule **NEW**

Same as No. 901-6 Series above, but with 2-meter metric scale on one side, 78¾" English scale on the other. Outside reading metric scale graduated on both edges in millimeters and centimeters. Inside reading English scale graduated on both edges in 16ths and inches.

Cat. No.	Length
902-2ME	2 m (78¾")



Extension Rule

Strong, 6' hardwood rule with 6" solid brass extension slide for inside measuring. Rule graduated on both edges in 16ths and inches. Black numerals on yellow background. Special, long-lasting, abrasion-resistant finish. Oversize steel joints are non-stretching and permanently lubricated. Solid brass square tips. Brass-plated joints and protector strike plates. Outside reading.

Cat. No.	Reading	Length
905-6	Outside	6'



Tapes



Power-return Steel Tapes

Easy feed, positive lock and smooth power return. Thumb-action control knob placed for convenient, efficient use. Black numerals on yellow background. For inside and outside measuring. Tough DuPont Mylar coating resists abrasion, rust, most oils and acids; lasts up to 10 times longer than ordinary finishes. Tape graduated on both edges in 16ths, inches and feet. Stud markings indicated. Useful reference tables on reverse side of 10', 12' and 16' tapes. Chrome-plated case. Replaceable blade. Belt clip.

Cat. No.	Length	Width
922-8	8'	$\frac{1}{2}$ "
922-10	10'	$\frac{3}{4}$ "
922-12	12'	$\frac{3}{4}$ "
922-16	16'	$\frac{3}{4}$ "
922-20	20'	$\frac{3}{4}$ "
922-25	25'	1"

Replacement Blades for tapes above.

Cat. No.	Length	Width
923-10	10'	$\frac{3}{4}$ "
923-12	12'	$\frac{3}{4}$ "
923-16	16'	$\frac{3}{4}$ "
923-20	20'	$\frac{3}{4}$ "
923-25	25'	1"

Order from your local distributor.

To better serve our customers, Klein Tools, Inc. has developed extensive national distribution through distributors. These distributors maintain a large stock of Klein tools and equipment in your own area and can fill your order rapidly. For the occasional item not in stock, our distributors receive prompt delivery from the factory. Order through your local distributor.



Metric-English Power-return Steel Tapes

Same as No. 922 Series, but with both English and metric scales. One edge graduated in millimeters, centimeters and meters; the other graduated in 16ths, inches and feet.

Cat. No.	Length	Width
924-3ME	3 m (9'10")	19 mm ($\frac{3}{4}$ "
926-5ME	5 m (16'5")	19 mm ($\frac{3}{4}$ "
926-6ME	6 m (19'8")	19 mm ($\frac{3}{4}$ "
926-7.5ME	7.5 m (24'7")	25 mm (1"

Replacement Blade for No. 924-3ME above.

Cat. No.	Length	Width
925-3ME	3 m (9'10")	19 mm ($\frac{3}{4}$ "



50' and 100' Steel Tapes

Smooth, easy feed-and-return action. Snap-out reel-in knob. Steel tape with red and black numerals on yellow background. Stud markings indicated. Graduated in 8ths, inches and feet. Tough, protective DuPont Mylar coating resists oil, alkali, acids and rust. Chrome-plated, die-cast case contoured to fit the hand.

Cat. No.	Length	Width
940-50	50'	$\frac{3}{8}$ "
940-100	100'	$\frac{3}{8}$ "
941-50	50' Replacement Tape	
941-100	100' Replacement Tape	



Metric-English Steel Tapes, 15 m, 25 m and 30 m

Same as No. 940 Series, but with metric scale on top side of tape, English scale on bottom side. Metric scale graduated in centimeters and meters; first 10 centimeters also graduated in millimeters. English scale graduated in 8ths, inches and feet; stud markings indicated.

Cat. No.	Length	Width
950-15ME	15 m (49'3")	9.5 mm ($\frac{3}{8}$ "
950-25ME	25 m (82'1")	9.5 mm ($\frac{3}{8}$ "
950-30ME	30 m (98'6")	9.5 mm ($\frac{3}{8}$ "



50' and 100' Dacron Tapes

Durable, stretch-resistant woven dacron tapes in 50' and 100' lengths. Fully protected by a clear, water-resistant plastic coating. First 9 inches heavily reinforced with long-wearing plastic. Bold red and black markings on white background. Tape graduated in 4ths, inches and feet. Rust-resistant steel case covered with tough, double-strength vinyl. Snap-out reel-in knob.

Cat. No.	Length	Width
942-50	50'	$\frac{5}{8}$ "
942-100	100'	$\frac{5}{8}$ "
943-50	50' Replacement Tape	
943-100	100' Replacement Tape	



TAPES/SAWS

Tapes CONT'D



150' Dacron Tape

Strong, plastic-coated dacron tape mounted on a lightweight aluminum reel. Tape graduated in 4ths, inches and feet. With large steel reel-in handle and adjustable leather strap for holding reel.

Cat. No.	Length	Width
942-150	150'	5/8"
943-150	150' Replacement Tape	



Roll'n Measure Tapeless Tape Measure

Measures almost anything, almost any shape. Saves time and trouble, makes tough measuring jobs easy. Measures straight lines, circles, curves and contoured surfaces. Provides large, clear digital read-out in feet and inches. Compact, lightweight and accurate. Designed for easy, one-hand operation. Ideal for measuring walls, floors, ceilings, telephone lines, etc. Permits one man to measure any distance. Rolling wheel records from 1/4" to 100' and starts over again for unlimited capacity. Zero reset button for full flexibility and speed. Strong plastic case. Supplied in hinged plastic box.

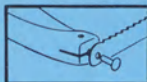
Cat. No.	Overall Size
944	2"x3"

Extension Handle for Roll'n Measure. Eliminates most stooping and climbing. Makes any measuring job easier. Three lightweight aluminum sections screw together to make 12", 24" or 36" handles.

Cat. No.	Full Length
945	36"

Hack Saws

"The Heavy-weight", die-cast zinc



With blade horizontal, flat-headed retaining pins permit cutting flush to surface.



Snap-in retaining pins hold blade in accurately machined slots, assuring perfect alignment full length of blade.

A rugged, heavy-duty saw with the versatility to satisfy professional requirements. Its greater weight means a faster job with less fatigue and permits efficient one-hand use where necessary. Blade cuts fully through to a flat surface; converts easily from vertical to horizontal position for full-flush cutting. Strong, twist-proof construction—tubular steel frame, die-cast zinc handles with blue finish. Pivot-action front end with slotted set screw permits maximum tightening of blade for more efficient sawing and longer blade life. Smooth, man-sized grip and curved front-end design for comfortable two-hand use. Storage

chamber for extra blades. Supplied with blade.

Cat. No.	Overall Length	Blade Length
701-10	14" (35.6 cm)	10" (25.4 cm)
701-12	16" (40.6 cm)	12" (30.5 cm)

"The Heavyweight" with threaded retaining pins. Same as No. 701-12 above, but with threaded pins that cannot be lost if blade breaks. Blade can only be used in vertical position with threaded retaining pins.

Cat. No.	Overall Length	Blade Length
701-12TH	16" (40.6 cm)	12" (30.5 cm)

"The Light-weight", die-cast aluminum



Heavy-duty professional quality, yet light enough for overhead cutting or use from a ladder or scaffold. Strong tubular steel frame with cast-aluminum handles, comfortable molded plastic grip inserts. Pivot-action front end and large knurled thumbscrew at handle for easy blade tension adjustment. Blade cuts fully

through to a flat surface. Removable retaining pins permit quick blade conversion to horizontal position for full-flush cutting. Storage chamber for extra blades. Supplied with blade.

Cat. No.	Overall Length	Blade Length
701-AL	16 1/4" (41.3 cm)	12" (30.5 cm)

"The Industrial", die-cast aluminum



Economical and exceptionally light in weight, but made to professional standards. Trim outline and compact design make it easy to use in confined spaces. Lighter weight and good balance make it less tiring for overhead work. Tubular steel frame, cast-aluminum handles with comfortable plastic grip inserts. Blade

cuts fully through to a flat surface. Wing nut provides simple, direct blade tension adjustment and easy conversion to horizontal position for nearly-flush cutting. Supplied with blade.

Cat. No.	Overall Length	Blade Length
700-12	16 1/2" (41.9 cm)	12" (30.5 cm)

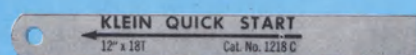
Hack Saws CONT'D



Mini Hack Saw

Compact, sturdy, designed to get into tight places. Produces flush cuts. Uses regular blades, even broken ones. Molded plastic body with comfortable handle. One 10" (25.4 cm) blade included.

Cat. No. 713 Length Without Blade 8" (20.3 cm)



Quick-Start Blades

Special starter teeth at front end lead conventional teeth into the work quickly and smoothly. Make starting a cut much easier than with ordinary blades. Starter teeth also permit hand-held cutting on more types of jobs. Right for general-purpose use on pipe, conduit, tubing, BX cable, sheet metal, low-carbon steel and non-ferrous metals. Available in regular carbon steel or high-speed steel.

Carbon Steel Quick-Start Blades. Gray finish.

Cat. No.	Blade Length	Teeth Per Inch
1018C	10" (25.4 cm)	18
1024C	10" (25.4 cm)	24
1032C	10" (25.4 cm)	32
1218C	12" (30.5 cm)	18
1224C	12" (30.5 cm)	24
1232C	12" (30.5 cm)	32

High-speed Steel Quick-Start Blades. Yellow finish.

Cat. No.	Blade Length	Teeth Per Inch
1018HS	10" (25.4 cm)	18
1024HS	10" (25.4 cm)	24
1032HS	10" (25.4 cm)	32
1218HS	12" (30.5 cm)	18
1224HS	12" (30.5 cm)	24
1232HS	12" (30.5 cm)	32

Hole Saws



High-speed Hole Saws

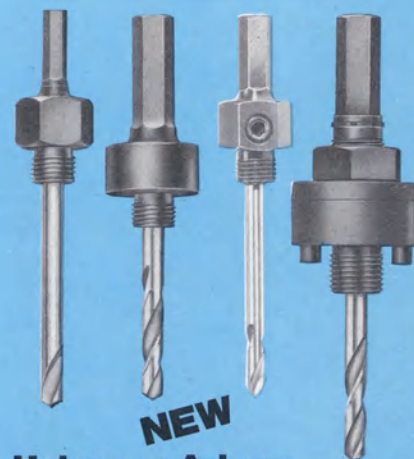
Made to cut accurate holes in machinable material, cleanly and efficiently. Recommended for steel and cast iron pipe, steel plate, aluminum, copper, brass, stainless steel, wood and plastics. Tough steel saw body has all seams welded for truer running and easier handling, especially when used on a portable hand drill. Long-lasting one-piece blade has specially hardened teeth for high-speed cutting. Knock-out slots in sides for easy core removal. Saws cut to a depth of 1 1/8" (2.9 cm) from one side and up to 2 1/4" (5.7 cm) when sawing from both sides. See arbors below.

Cat. No.	Saw Dia. inches (mm)	Pipe Tap Size ①	Pipe Entr. Size ②	For Use With Arbor No.
31100	3/4" (19)	1/2"	3/8"	31160, or 31164, or 31172
31104	7/8" (22)	3/4"	1/2"	
31108	1" (25)	—	—	
31112	1 1/8" (29)	1"	3/4"	
31116	1 3/8" (35)	—	1"	
31120	1 1/2" (38)	1 1/4"	—	31168
31124	1 3/4" (44)	1 1/2"	1 1/4"	
31128	2" (51)	—	1 1/2"	
31132	2 1/2" (64)	—	2"	
31136	3" (76)	—	2 1/2"	
31140	3 3/8" (92)	—	3"	
31144	4" (102)	—	—	
31148	4 1/2" (114)	—	4"	
31152	5" (127)	—	—	
31156	6" (152)	—	—	

Note: All pipe sizes listed in the "Pipe Tap Size" and "Pipe Entrance Size" columns are standard industry sizes. All pipes are sized by the nominal inside diameter.

① **Pipe Tap Size**—The sizes listed in this column provide the necessary information whenever a pipe is to be threaded into tanks, boilers, etc. To secure the best results, the hole should be reamed before tapping with a reamer having a taper of 3/4" per foot.

② **Pipe Entrance Size**—The sizes listed in this column provide the necessary information for any given pipe size to have sufficient clearance to pass through beams, walls, bulkheads, etc.

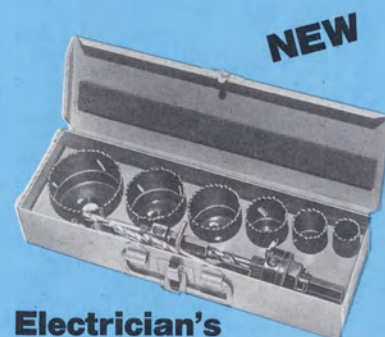


Hole-saw Arbors

Rugged, heat-treated steel arbors complete with 1/4" (6 mm) high-speed pilot drills. Built to stand up under hard, high-speed use. Hexagonal shanks in sizes for all hole saws listed.

Cat. No.	Shank Size	Chuck Size
31160	1/4" (6 mm)	1/4" (8 mm)
31172	3/8" (10 mm)	3/8" (10 mm)
31164	7/16" (11 mm)	1/2" (13 mm)
*31168	7/16" (11 mm)	1/2" (13 mm)

*Arbor No. 31168 has pin-drive construction for interchanging saws without removing arbor from chuck.



Electrician's Hole Saw Set

A complete 12-piece set specially selected for making electrical installations. Kit contains six high-speed hole saws, two arbors, two spare pilot drills, an Allen wrench and a metal case. Saw diameters are 7/8", 1 1/8", 1 3/8", 1 1/2", 2" and 2 1/2" for standard pipe and conduit entrances of from 1/2" to 2". Packed securely in a fitted metal carrying case with durable red finish.

Cat. No.	Description
31180	Electrician's 12-piece Hole Saw Set



SAWS/EDGED TOOLS

Compass Saw



Klein Magic-Slot Compass Saw

Oversized handle permits two-hand use. Klein Magic-Slot design permits fast blade changing without removing thumb screw. Strong, lightweight die-cast zinc handle with blue finish. Blade not supplied. Takes any Klein Magic-Slot blade listed below.

Cat. No.	Overall Length
702	5" (12.7 cm)



Klein Magic-Slot Compass Saw Blades

Electrician's Cut-in Blade. Only 4" long for cutting through wallboard or Masonite to install wiring, outlet boxes, etc. Pointed starter tip. Fits Klein Magic-Slot Compass Saw No. 702 above.

Cat. No.	Blade Length	Teeth Per Inch
709	4" (10.2 cm)	10



General-purpose Blades. Tough, high-quality carbon steel. In 8", 10" and 12" lengths. Fit Klein No. 702 compass saw above.

Cat. No.	Blade Length	Teeth Per Inch
704	12" (30.5 cm)	8
705	12" (30.5 cm)	10
706	8" (20.3 cm)	10
707	10" (25.4 cm)	10

Special Metal-cutting Blade. Has 24 teeth to the inch for more efficient metal cutting. Tough, high-quality carbon steel. Fits Klein No. 702 compass saw above.

Cat. No.	Blade Length	Teeth Per Inch
708	8" (20.3 cm)	24

Edged Tools Introduction

Professional tradesmen require a variety of edged tools to do special kinds of jobs. Klein job-matched edged tools for professional use are designed and manufactured to meet the high standards of the men who use them.

The edge produced on each tool is as important as the overall design of the tool itself. The Klein edge is tough, but not brittle. It is keen and stands up well. Only top quality steels of the proper type for each cutting purpose are used.

Klein edged tools are listed and described in the following order:

Knives
Scissors
Snips
Drills
Tapping Tools
Chisels

You...and OSHA...and Klein Tools.

Safety on the job and efficient work are two things everybody wants, employer and employee alike. Here's exactly what the Occupational Safety and Health Act of 1970 says about hand tools:

(Part 1926, Subpart I—Tools—Hand and Power.)

Section 1926.301 Hand tools.

"(a) Employers shall not issue or permit the use of unsafe hand tools.

"(b) Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs.

"(c) Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.

"(d) The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool."

The OSHA requirements for hand tools also say that no matter who owns or supplies the tools, they must be maintained in safe condition.

Safe tools are efficient tools. Worn out or broken tools aren't safe and they're not efficient. They can be dangerous to the user and those working near him. Worn tools should be repaired or replaced as required.

The cost of a new tool is small when compared to an injury or lost time or substandard performance.

Pocket Knives

These heavy-duty knives all have blades of the finest cutlery steel, tough and carefully tempered to hold their edge and stand up under hard use. Strongly riveted construction with large shackles riveted through handles. Steel and brass bodies with special, super-tough plastic handles that won't crack or chip. Handles are textured for better gripping. All screwdriver blades also have a cutting edge. As described below, certain blades lock open automatically for safer, more efficient use.



Standard spearpoint blade 2½" long (6.4 cm) and screwdriver-tip blade 2½" long (6.4 cm). Screwdriver blade locks open.

Cat. No.	Length Closed
1550-2	3¾" (9.5 cm)



Curved sheepfoot skinning blade 2¾" long (6.0 cm), standard spearpoint blade 2½" long (6.4 cm), and screwdriver-tip blade 2½" long (6.4 cm). Screwdriver blade locks open.

Cat. No.	Length Closed
1550-6	3¾" (9.5 cm)

Order from your local distributor.

Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.

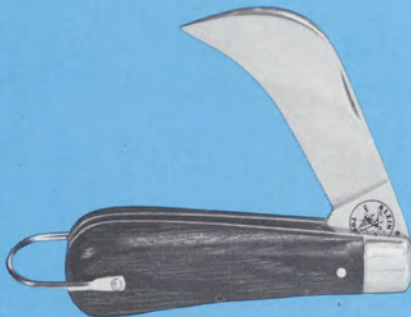


Pocket Knives CONT'D



Special insulation-slitting blade 1½" long (3.8 cm), spearpoint blade 2½" long (6.4 cm), and screwdriver-tip blade 2½" long (6.4 cm). Both slitting blade and screwdriver blade lock open.

Cat. No.	Length Closed
1550-9	3¾" (9.5 cm)



Extra-large curved sheepfoot slitting blade 2¾" long (6.7 cm). Ideal for heavy-duty line work. Blade locks open.

Cat. No.	Length Closed
1550-4	4" (10.2 cm)



Curved sheepfoot slitting blade 2¾" long (6.0 cm) and screwdriver-tip blade 2½" long (6.4 cm). Screwdriver blade locks open.

Cat. No.	Length Closed
1550-7	3¾" (9.5 cm)



Coping-type blade 2¼" long (5.7 cm). Compact, lightweight—ideal for skinning small wire and cable.

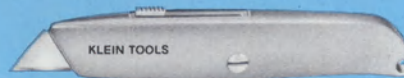
Cat. No.	Length Closed
1550-5	3¼" (8.3 cm)



Special insulation-slitting blade 1½" long (3.8 cm) and curved sheepfoot skinning blade 2¾" long (6.0 cm). Slitting blade locks open.

Cat. No.	Length Closed
1550-10	3¾" (9.5 cm)

Special Purpose Knives



Retractable-blade Utility Knife

Top button moves heavy-duty, razor-edged blade to any of three cutting positions. Blade retracts fully for carrying. Lightweight aluminum handle is shaped for comfort. With three blades; extra blades store in handle. (Leather holder No. 5185 listed on page 54.)

Cat. No.	Length Closed
44100	6" (15.2 cm)

Replacement Utility Knife Blades. Heavy-duty razor-edged blades, each 2⅞"x.025" (6.2x.06 cm). May be used with most other makes of utility knives.

Cat. No.	Description
44101	Package of 5 Blades

Klein Slitting Tool for control cable



Designed to slit tough insulation easily and quickly. Will not damage conductors inside cable sheath. Ideal for making long cuts. Lightweight, cast-zinc handle shaped to fit the hand. Strong tempered steel blade may be sharpened and is easily replaced.

Cat. No.	Overall Size
1558	4½"x2½" (11.4x6.4 cm)
058K	Replacement Blade and Roll Pin.



Cable Sheath Splitting Knife

A compact, lightweight knife for opening lead cables. Strong, carefully tempered blade of the finest cutlery steel. Sharp, chisel-shaped edge. Hammer head on back. Plastic-dipped handle. (Leather blade guard No. 5574S listed on page 50.)

Cat. No.	Overall Length	Blade Length
1515-S	7¾" (18.7 cm)	2⅞" (6.6 cm)



Heavy-duty Cable Sheath Splitting Knife, Bell System type

A big, heavy-duty knife for splitting cable sheaths. Rugged, carefully tempered, cutlery-steel blade. Keen, chisel-shaped edge. Plastic-dipped handle. (Leather blade guard No. 5574L listed on page 50.)

Cat. No.	Overall Length	Blade Length
1515-1	8¾" (22.2 cm)	4½" (11.4 cm)



EDGED TOOLS

Special Purpose Knives CONT'D



Lineman's Plastic Handle Skinning Knife

Built extra strong for line work. Tough, tempered steel blade with the blade back ground flat for scraping copper wire. Big, rugged, molded-on plastic handle provides excellent insulation and a firm, comfortable grip. Large finger guard keeps fingers away from blade. With or without handle ring. (Leather holder No. 5163 listed on page 53.)

Cat. No.	Length Less Ring	Blade Length
1570-3	8" (20.3 cm)	3" (7.6 cm)
1570-3LR	As above without handle ring.	



Lineman's Rubber Handle Skinning Knife

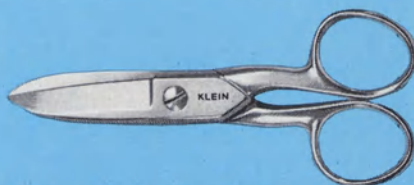
Similar to No. 1570-3 knife above, but with molded, resilient rubber handle to provide excellent insulation and a firm, comfortable, non-slip grip. Hole in handle is through solid rubber. (Leather holder No. 5163 listed on page 53.)

Cat. No.	Overall Length	Blade Length
1560-3	8" (20.3 cm)	3" (7.6 cm)

Order from your local distributor.

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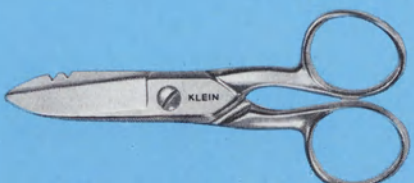
Scissors



Electrician's Scissors

Designed for heavy-duty use. Strong, tough, tempered steel. Nickel-plated finish. Scraper and file on outside of both blades. Sharp points. Screw hinge permits adjustment. (Leather holders listed on page 54.)

Cat. No.	Overall Length
2100-5	5" (12.7 cm)



Electrician's Scissors with stripping notches

Similar to No. 2100-5 above, but with lower blade serrated to prevent slippage of wire when cutting. Upper blade has notches for stripping 19- and 23-gauge wire. Rounded points. (Leather holders listed on page 54.)

Cat. No.	Overall Length
2100-7	5" (12.7 cm)

Snips



Straight-cut Snips

Strong, drop-forged steel. Cuts all sheet metals. Polished jaws. Inside edge of blade face is straight to guide snips along a straight line. Also cuts wide curves in light stock. Smooth, easy blade action and proper balance reduce fatigue. Large, comfortable handle bows.

Cat. No.	Overall Length	Length of Cut
1106	12" (30.5 cm)	3 1/4" (8.3 cm)



Aviation Snips

Compound action increases leverage for maximum cutting ease. Cuts all sheet metals up to 18-gauge with half the effort of conventional snips. Available in left, right and straight cutting patterns. Hot drop-forged jaws of tough, wear-resistant molybdenum steel to stand up under compound lever action and the cutting of heavy stock. Self-opening action for fast, easy feed. Safety latch keeps jaws closed when not in use. Length of cut 1 3/8" (3.5 cm). Handles of electric-furnace steel for extra strength. Handles are contoured and plastic-dipped to provide a firm, comfortable grip; color coded by cutting pattern.

Cat. No.	Pattern	Color Code	Overall Length
1100L	Left	Red	9 3/4" (24.8 cm)
1101R	Right	Green	9 3/4" (24.8 cm)
1102S	Straight	Yellow	9 3/4" (24.8 cm)
P406	Replacement Spring for Nos. 1100L and 1102S.		
P407	Replacement Spring for No. 1101R.		

Drills, Tapping Tools & Chisels



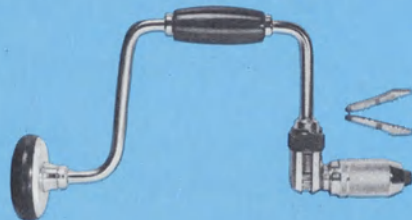
Push Drill

A rugged, all-steel, spring-action push drill. Chrome plated. Finely cross knurled handle and chuck collar for non-slip grip. Handle magazine holds drill bits, slides down on shaft for easy selection. Notched drill bits will not pull out of chuck when drilling. Complete with eight drill bits: $\frac{1}{16}$ " (1.6 mm), $\frac{3}{64}$ " (2.0 mm), $\frac{3}{32}$ " (2.4 mm), $\frac{7}{64}$ " (2.8 mm), $\frac{1}{8}$ " (3.2 mm), $\frac{9}{64}$ " (3.6 mm), $\frac{5}{32}$ " (4.0 mm), and $\frac{11}{64}$ " (4.4 mm).

Cat. No.	Length with Drill Bit
64002	11 $\frac{1}{2}$ " (29.2 cm)

Replacement Bit Set. Eight notched drill bits in sizes listed above.

Cat. No.	Description
64003	Replacement Bit Set



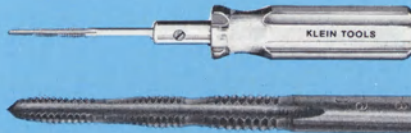
Bit Brace

Strong, nickel-plated steel body with smooth, tough Cycloc handle and head. Ball-bearing, steel-reinforced head. Positive ratchet action. Spring-loaded alligator jaws hold square taper shank bits, small and medium size drills. Chuck housing finely cross knurled.

Cat. No.	Sweep
64004	10" (25.4 cm)
64005	12" (30.5 cm)

Replacement Jaws. Steel alligator jaws for Nos. 64004 and 64005 Bit Braces above.

Cat. No.	Description
64110	Replacement Bit Brace Jaws



Triple-Tap Tool

For cleaning and chasing burred threads. Replaceable, chrome-finished 3" (7.6 cm) steel blade threaded to tap three hole sizes. Available in two tapping-size combinations. Clear plastic handle, color coded for identification.

Cat. No.	Color Code	Taps Screw Holes
625-24	Blue	6/32, 8/32 and 10/24
625-32	Orange	6/32, 8/32 and 10/32

Replacement Blades. Chrome-finished steel tapping blades for Nos. 625-24 and 625-32 Triple-Tap Tools above.

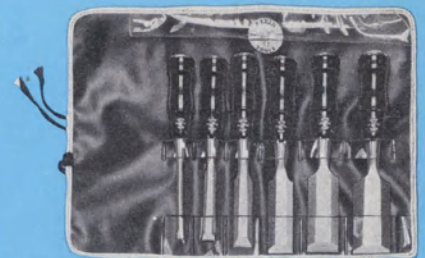
Cat. No.	Description
626-24	Replacement Blade for No. 625-24
626-32	Replacement Blade for No. 625-32



Electrician's Chisel

One-piece handle and blade of strong alloy steel. Baked-enamel finish extends to the polished blade edge.

Cat. No.	Blade Width	Overall Length
66100	2 $\frac{3}{4}$ " (7.0 cm)	8" (20.3 cm)



Wood Chisels

Heavy-duty chisels in six sizes. Tough alloy steel blades with precision-ground bevels and cutting edges. One-piece blade and tang. Contoured plastic handle with rounded steel end cap for hammering. Available individually or in sets of four and six sizes.

Cat. No.	Bit Width	Overall Length
66210	$\frac{1}{4}$ " (0.6 cm)	7 $\frac{1}{4}$ " (18.4 cm)
66211	$\frac{1}{2}$ " (1.3 cm)	7 $\frac{3}{8}$ " (18.7 cm)
66212	$\frac{3}{4}$ " (1.9 cm)	7 $\frac{7}{8}$ " (19.4 cm)
66213	1" (2.5 cm)	7 $\frac{7}{8}$ " (20.0 cm)
66214	1 $\frac{1}{4}$ " (3.2 cm)	8" (20.3 cm)
66215	1 $\frac{1}{2}$ " (3.8 cm)	8 $\frac{1}{4}$ " (21.0 cm)

Six-piece Wood Chisel Set. Complete set of all six sizes listed above in heavy plastic roll-up pouch with woven tie.

Cat. No.	Description
66201	Six-piece Wood Chisel Set

Four-piece Wood Chisel Set. Chisel sizes $\frac{1}{4}$ " (0.6 cm), $\frac{1}{2}$ " (1.3 cm), $\frac{3}{4}$ " (1.9 cm), and 1" (2.5 cm) in plastic pouch with woven tie.

Cat. No.	Description
66200	Four-piece Wood Chisel Set

For 44 pages of practical tips for professionals on using hand tools, see the booklet Proper use and care of Hand Tools, prepared by Klein Tools in conjunction with the Hand Tools Institute. Copies are available from Klein distributors.



IRON WORKER'S TOOLS

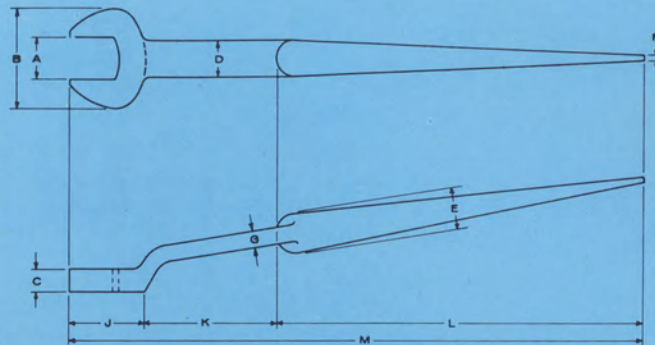
Klein Erection Wrenches/Construction Wrenches

Klein offers a complete line of tools and related equipment specially designed for iron workers, rodmen and other workers in the heavy construction field. Our erection wrenches, for example, incorporate features that iron workers have found invaluable in promoting both safety and efficiency. Klein's complete line includes erection wrenches, pliers, bull pins, drift pins, tool holders, bolt bags, safety caps, safety belts, harnesses and lanyards.



Klein Erection Wrenches

These wrenches incorporate all of the features that iron workers find most desirable. Drop-forged from select alloy steel to withstand high-leverage and heavy loads. Extra-heavy-duty head area gives maximum strength and durability. Wrench handle features an extra-deep offset to provide additional hand-clearance without sacrificing tightening power. Continuous taper of handle makes lining-up bolt holes easy, allows use on a range of bolt-hole sizes without binding. Extra-large hub area allows use on larger diameter holes than possible with most other wrenches. Klein erection wrenches are available in heavy, regular and utility nut sizes. Catalog number, bolt size and nominal opening size are stamped on every wrench for easy identification. Wrenches are high-visibility yellow.



Cat. No.	Nut Type	Bolt Size	Nominal Opening	Length
3210	U.S. Heavy	1/2"	5/8"	12"
3211	U.S. Heavy	5/8"	1 1/16"	14 3/4"
3212	U.S. Heavy	3/4"	1 1/4"	16 1/2"
3213	U.S. Heavy	7/8"	1 7/16"	17 5/16"
3214	U.S. Heavy	1"	1 5/8"	17 11/16"
3220	U.S. Regular	1/2"	13/16"	12"
3221	U.S. Regular	5/8"	1"	14 3/4"
3222	U.S. Regular	3/4"	1 1/8"	17"
3223	U.S. Regular	7/8"	1 5/16"	17 5/16"
3224	U.S. Regular	1"	1 1/2"	17 11/16"
3231	Utility	5/8"	1 5/16"	14 3/4"
3232	Utility	3/4"	1 1/8"	17"

Bolt Size	A Nominal Opening			B	C	D	E	F	G	J	K	L	M
	U.S. Heavy	U.S. Reg.	Utility										
1/2	7/8	1 1/16	1 1/8	1 13/16	3/8	5/8	5/8	1/2	1/4	1 1/16	3	7 7/16	12
5/8	1 1/16	1	1 1/8	2 5/32	7/16	7/8	7/8	1/2	5/16	1 3/4	3	10	14 3/4
3/4	H 1 1/4	R 1 1/8	U 1 1/8	2 1/2	9/16	1	1	1/2	3/8	2	4	11	17
7/8	1 1/8	1 5/16	1 1/8	3 1/16	1 1/16	1 1/8	1 1/8	3/16	1/2	2 5/16	4	11	17 7/16
1	1 5/8	1 1/2	1 1/2	3 17/32	1 1/16	1 1/8	1 1/8	3/16	1/2	2 11/16	4	11	17 11/16

All dimensions in inches.



Adjustable Head Construction Wrench

Versatile wrench fits all nuts and bolts to 1 1/2" (38.1 mm). Eliminates the need for carrying several fixed-size wrenches. Drop-forged from select alloy steel with continuous taper handle. Industrial black finish.

Cat. No.	Max. Size Capacity	Length
3239	1 1/2" (38.1 mm)	15" (38 cm)



5460



5459-T

Wrench Holders

Leather wrench holders have slots for two erection wrenches. 5460 is slotted for sliding on 2" wide (51 mm) belt; 5459-T has tunnel loop to permit use on wider belts or to slide over D rings, buckles and other accessories.

Cat. No.	Nominal Size
5460	6"x8" (15x20 cm)
5459-T	6"x9 1/2" (15x24 cm)

Iron Worker's/Rodman's Side Cutting Pliers



The following pliers all have Hook-Bend handles.



Regular Design

Specially designed and sharpened for cutting soft annealed tie wire used on reinforcing rods. Coarsely knurled jaws. Hook bend in one handle for non-slip grip. Coil spring holds jaws open.

Cat. No.	A	B	C	D	E
201-7CST	8 $\frac{3}{4}$ " (222)	1 $\frac{1}{32}$ " (33)	1 $\frac{1}{32}$ " (29)	$\frac{1}{2}$ " (13)	$\frac{5}{16}$ " (16)



High-leverage Design

High-leverage design for easier cutting of soft annealed tie wire. Provides a 46% greater mechanical cutting and gripping advantage than other pliers of this type. Coarsely knurled jaws. Hook bend in one handle for non-slip grip. With coil spring.

Cat. No.	A	B	C	D	E
213-9ST	9 $\frac{9}{32}$ " (236)	1 $\frac{1}{16}$ " (37)	1 $\frac{1}{32}$ " (31)	$\frac{5}{8}$ " (16)	2 $\frac{29}{32}$ " (18)

Key to Plier Dimensions

A—Overall Length D—Jaw Thickness
B—Jaw Length E—Knife Length
C—Jaw Width F—Point Thickness

All plier dimensions are in inches and (millimeters).

Tool Holders



Plier Holder

Made of high-quality harness leather. Has slots for attaching to belt. Plier nose protrudes through opening at bottom. Two sizes available: 5107-6 holds No. 201-7CST or any 6" (15 cm) or 7" (18 cm) plier; 5107-9 holds No. 213-9ST or any 8" (20 cm) or 9" (23 cm) plier.

Cat. No.	Nominal Size
5107-6	3 $\frac{1}{2}$ "x8 $\frac{1}{2}$ " (9x22 cm)
5107-9	3 $\frac{3}{4}$ "x11" (10x28 cm)



5118RT



5118R

Plier & Rule Holder

This leather tool holder has two pockets; one for a side cutting plier; one for a 6' (1.8 m) folding rule. Tunnel loop permits use on wide belts and allows holder to be slid over D rings, buckles and other accessories.

Cat. No.	Nominal Size
5118RT	4 $\frac{1}{2}$ "x12 $\frac{1}{2}$ " (11x32 cm)

Same as above but slotted and punched for easy attachment to belt.

Cat. No.	Nominal Size
5118R	4 $\frac{3}{8}$ "x8" (12x20 cm)

Bull Pins



"Safe-T" Head Bull Pins

An improved bull pin which increases efficiency by providing a larger striking surface. Design of the head also reduces chance of pin slipping from the hand when aligning holes. Angled head and smooth blending of radii increases the strength of these bull pins and reduces the danger of chipping. Below the head, squared-off shoulders have been forged to provide a surface for applying wrench to loosen wedged bull pins. Long, even taper reduces binding and hang-up. A special feature of these Klein bull pins is their added resistance to "mushrooming" from repeated pounding. Note: **OSHA specifically states that, "Impact tools such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads."** Because of their added resistance to mushrooming, these SAFE-T Head bull pins can be used safely much longer than conventional designs.

Cat. No.	Top Diameter	Point Diameter	Length
3255	1 $\frac{3}{4}$ " (44.5 mm)	$\frac{5}{16}$ " (7.9 mm)	13" (33 cm)
3256	1 $\frac{1}{2}$ " (38.1 mm)	$\frac{1}{4}$ " (6.4 mm)	10" (25 cm)

All dimensions are nominal.



Standard Bull Pins

Made of drop-forged alloy steel. Standard design offers greater initial economy, but no added protection against mushrooming. Note: For safety's sake, OSHA requires that bull pins be replaced when the head begins to mushroom. Available in all of the most popular sizes.

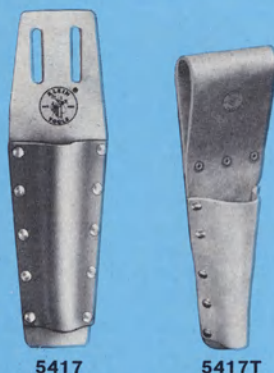
Cat. No.	Top Diameter	Point Diameter	Length
3251	1 $\frac{1}{8}$ " (27.0 mm)	$\frac{3}{8}$ " (9.5 mm)	15" (38 cm)
3252	1 $\frac{1}{8}$ " (30.2 mm)	$\frac{7}{16}$ " (11.1 mm)	15" (38 cm)
3257	1 $\frac{1}{8}$ " (27.0 mm)	$\frac{3}{8}$ " (9.5 mm)	12" (30 cm)
3258	1 $\frac{1}{8}$ " (30.2 mm)	$\frac{7}{16}$ " (11.1 mm)	12" (30 cm)
3265	1 $\frac{1}{4}$ " (31.8 mm)	$\frac{7}{16}$ " (11.1 mm)	12" (30 cm)
3259	1 $\frac{5}{16}$ " (33.3 mm)	$\frac{7}{16}$ " (11.1 mm)	12" (30 cm)

All dimensions are nominal.



IRON WORKERS TOOLS

Bull Pin Holders



Bull Pin Holders

Harness leather holders for Klein bull pins. Attach to belt for on-the-job convenience. No. 5417 is slotted for attaching to 2" wide (51 mm) belts. No. 5417T has tunnel loop to permit use on wider belts or to slide over D rings, buckles and other accessories.

Cat. No.	Nominal Size
5417	3/4"x11" (8x28 cm)
5417T	3/4"x12 1/4" (8x31 cm)

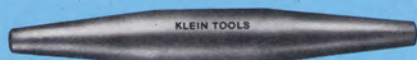


Bolt Bag

The design of this large capacity, canvas bolt bag has met with virtually universal acceptance among iron workers. Large, deep bag holds a generous supply of bolts; tapered tool loop on each side for carrying bull pins. Double bottom for added durability. Sturdy 3" (76 mm) nylon belt loops. For even greater wear life, available in leather.

Cat. No.	Size
5416	5"x9"x10" deep (13x23x25 cm)
5416L	Same as above except made of chrome leather.

Drift Pins & Bars



Barrel-Type Drift Pins

Tapers are uniform and blend into body diameter. Tough, drop-forged steel, will properly end-pein in use for maximum safety.

Cat. No.	Max. Diameter	Point Diameter	Overall Length
3260	1 1/16" (17.5 mm)	5/16" (7.9 mm)	7 1/2" (19 cm)
3261	1 3/16" (20.6 mm)	7/16" (11.1 mm)	8" (20 cm)
3262	1 5/16" (23.8 mm)	1/2" (12.7 mm)	8" (20 cm)
3263	1 1/8" (27.0 mm)	9/16" (14.3 mm)	8" (20 cm)

All dimensions are nominal.



Connecting Bars

Provide extra leverage when positioning steel members and aligning bolt holes. This drop-forged fit-up bar is pointed on one end; the other has chisel-end at a 15° angle to give greater leverage.

Cat. No.	Hex. Diameter	Length
3242	3/4" (19.1 mm)	30" (76 cm)



Similar to 3242 above but chisel-end is straight.

Cat. No.	Hex. Diameter	Length
3240	3/4" (19.1 mm)	30" (76 cm)

For 44 pages of practical tips for professionals on using hand tools, see the booklet Proper use and care of Hand Tools, prepared by Klein Tools in conjunction with the Hand Tools Institute. Copies are available from Klein distributors.

Safety Cap & Liner



Safety cap meets OSHA requirements for Class "B" cap; Federal Specifications GGG-H-142G and GGG-H-177B; and ANSI Z89.1—1969 Class A, and ANSI Z89.2—1971 Class B. Made of high-density polyethylene to protect against impact, chemicals and high voltage. Design of the 4-point inside suspension gives extra protection by moving upward into wedge-shaped sockets upon impact, absorbing much of the force.

Another unique feature of the Klein Safety Cap is its nape strap which holds the cap firmly in place, eliminating the need for a chin strap in most instances. Straps and bands are washable, shrink-and stretch-proof. A porous brow pad promotes ventilation for maximum comfort. Cap adjustable to fit all sizes.

For added warmth, Klein also offers a Safety Cap Liner of 100% orlon. This extremely lightweight, spark-resistant liner sheds water and has an absorption factor of essentially zero. Four slots are provided for fitting the liner *between* the cap shell and suspension so that the cap can't "ride up" when the liner is utilized. An extra-large button makes fastening the liner chin-strap easy, even when wearing gloves. Liner may be buttoned over top of cap, out of the way when not in use.

Cat. No.	Description
60005	Safety orange, polyethylene safety cap.
60007	Blue orlon cap liner.

Safety Belts



Quick Release Safety Belt

Klein Quick Release Belt is designed for use in construction work where safety may depend, in part, on being able to quickly disengage the safety belt. Our Quick Release Belts are made of 1 3/4" wide (44 mm), MIL spec Type XIII orange nylon webbing. The Klein Quick Release buckle disengages instantly in an emergency, yet is designed to prevent accidental opening.

Cat. No.	Description
5465R	2" wide (51 mm) mildew-resistant cotton web pad sewn to nylon belt. Furnished with 12' (3.6 m) of 1/2" (13 mm) nylon rope spliced to rope loop.



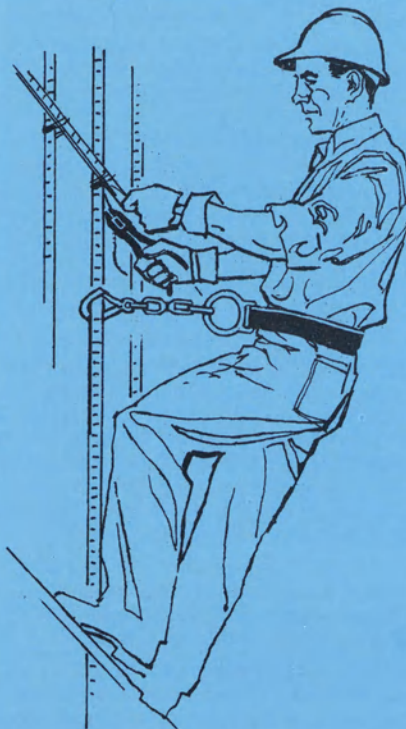
Snap Safety Belt

Made of 1 3/4" wide (44 mm) MIL spec Type XIX orange nylon. Lined with chrome leather. Has a removable 3" wide (76 mm) mildew-resistant cotton back pad. Large No. 457-5 drop-forged safety hook is designed to snap over reinforcement bars. Hook throat opening is 1 1/2" I.D. (38 mm).

Cat. No. 5411

For Klein's complete selection of safety belts, harnesses and lanyards see pages 60-68.

Re-Bar Assembly



Designed to position rodman permitting him to use both hands. Consists of drop-forged snap hook No. 457-5 with safety latch; Klein drop-forged single-bar circle D ring; and swivel to assure free movement. Throat opening of snap hook is 1 1/2" (38 mm).

Cat. No.	Overall Length
888	15" (38 cm)

Safety Note:

When any safety belt, harness, strap or lanyard is subjected to actual loading or impact forces, as may be developed in arresting a fall, they should be removed from service and replaced.

Miscellaneous Tool Holders



Snap Loop

Leather loop with snap hook for carrying an adjustable wrench, welder's igniter or other tool with hang hole. Slides on a 3" wide (76 mm) belt.

Cat. No. 5458



5457



5457T

Hammer Holders

High-quality harness leather holders. No. 5457 is slotted for attaching to 2" wide (51 mm) belt. No. 5457T has tunnel loop to permit use on wider belts or to slide over D rings, buckles and other accessories.

Cat. No.	Nominal Size
5457	4 1/4" x 10 1/2" (11 x 27 cm)
5457T	4 1/4" x 12" (11 x 30 cm)



Electrode Bag

Bag is tough No. 4 canvas with heat-resistant hard leather bottom. Height in front is 12" (30 cm); height in back is 15 1/2" (39 cm). Web loop for sliding over belt.

Cat. No.	Nominal Diameter
5471	2 1/2" (64 mm)



GRIPS

Introduction

Klein Grips offer total wire and cable pulling capability for the power utility, telecommunication and many other industries.

Klein "Chicago"® and "Haven"® Grips are widely used in the power, communications and general construction fields to pull wire and cable, and to maintain temporary tension until it can be permanently terminated. These grips are to be used for pulling up lines to tension only and are not recommended for use as anchors.

Klein has designed and built standard and custom grips of outstanding quality since 1885. They are proven and dependable. Our complete line includes a type and size for every application.

There is a Klein grip for virtually every type of wire and cable, including:

Extra-high-strength cables, messenger, guy strand and conductors.

Bare wire.

Large diameter conductors.

Bare A.C.S.R., aluminum and stranded copper cables.

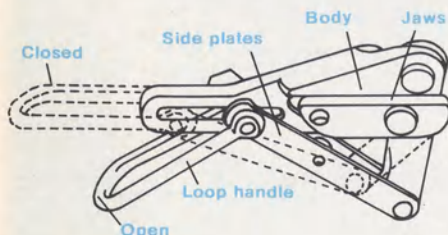
PVC-covered conductors.

Weatherproof wire.

Telephone cable.

Klein "Chicago" Grips have self-locking loop handles, standard on most grips and available on hot-line grips by ordering with spring. The self-locking feature allows the jaws to be locked in open position for easier placement on wire or cable. "Chicago" Grips are available with bronze-lined jaws to provide additional protection against surface scratching and galling and to improve the coefficient of friction with certain cables. To further minimize conductor damage, our "Chicago" Grips have longer jaws than other grips of similar pattern. For details, see *Jaw Length* tables.

Klein grips are carefully inspected and tested to meet our uncompromising standards, including safe-load tests to exceed maximum requirements.



Convenient lock-open feature on Klein "Chicago" Grips saves substantial time, makes grip positioning easier than with wedge or bolt-on designs. To lock, open jaws and fold loop handle toward the side plates.

How to select the proper grip.

Care should be taken in choosing grips to assure working safety and correct handling of wire and cable. Three basic factors determine the selection of the proper grip for each specific application:

1. Type of wire or cable.
2. Outside diameter of wire or cable.
3. Maximum safe load required.

All three of these factors are included in the description of each Klein grip along with the type of inside jaw contour available with each grip. Correct design of gripping jaw is essential to avoid damage to wire or cable. In pulling stranded wire, the jaws should be long enough to take a full lay of cable to avoid damage to the conductor.

The tables on pages 45-46 are supplied to assist you in determining outside diameters and breaking points of the various types and sizes of wire and cable in general use.

For our recommendations of the proper grip to meet your requirements, send exact cable description and pulling requirements.

Inside jaw contours. Klein "Chicago" Grips are offered with three types of jaw contour: Single V, Double V, and Round. Each grip comes with the proper inside jaw contour for the type of wire or cable to be worked.



Single V. Simple three-point contact jaws designed for use on small diameter bare wire and cable (solid and strand).

Double V. Four-point contact provides greater gripping area and assures proper alignment of wire and cable within the jaws. Designed for high-strength steel guy wire and messenger wire. Can also be used on extra-high-strength cables and conductors.

Round. Round jaws provide maximum contact and gripping power to prevent conductor damage. This jaw design is recommended for use on bare aluminum, ACSR, and copper conductor.

Repair or replace?

As a general rule, *never repair any grip.* Grip jaws can sometimes be replaced if the grip is returned to Klein, but structural wear or damage cannot be safely corrected. *Grips that are bent, misaligned or otherwise distorted should be discarded and replaced.*

Before each use all grips should be checked for jaw condition, proper alignment of jaws and all parts, and possible distortion caused by exceeding safe load specifications. Grips should operate smoothly. Spring-loaded grips should lock open with clevis in "Down" position and close automatically with clevis in "Up" position.

The Klein Parallel Jaw Grip may be tested by opening and closing the jaws by hand. All parts and rivets which may be distorted due to exceeding safe load should be checked.

To prevent slippage, the surfaces of gripping jaws must be kept clean. Abrasive cloth or a wire brush is recommended for cleaning jaws. (Note: Aluminum strand conductor may have a die grease coating which can deposit on grip jaws. New aluminum conductor should be wiped clean before grip applications. Grip jaws should be wiped clean of all grease before use.)

All working parts should be kept clean and lubricated for smooth action. Clean by immersing the entire grip in a safe solvent. After grip has dried completely, apply graphite oil to all joints and moving parts, being careful to keep jaws clean and free of all lubricant.

Please remember this general rule: *Never repair any grip.* If there is ever any question about the safe condition of any grip, please consult us directly.

You... and OSHA... and Klein Tools.

OSHA requires that all hand tools and equipment be maintained in good working order and that they be free from damage caused by wear or abuse (OSHA Part 1910, Subpart P, Section 1910.242).

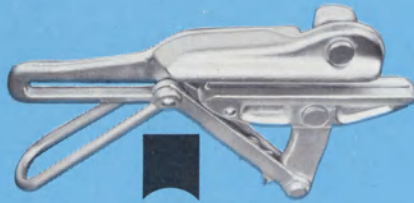
In addition, OSHA Part 1926, Subpart V, Section 1926.955, paragraph 7 (ii) and 8 specifically state that:

"The manufacturer's load rating shall not be exceeded for stringing lines, pulling lines, sock connections, and all load-bearing hardware and accessories.

"Conductor grips shall not be used on wire rope unless designed for this application."

CAUTION: On all grips proper maintenance and field inspection are important to prevent accumulation of foreign material in the jaws which might cause slippage.

Klein "Chicago"® Grips



Inside
Jaw
Contour

Grips for large diameter conductors

Klein custom finishes each of these grips to your cable specifications. Designed for hollow conductors and other large diameter cables, the round jaws of these grips are shaped to provide maximum contact with the circumference of the cable, virtually eliminating conductor damage. Because we hold these grips in blank and finish each grip to your specs, allow 30 to 45 days for delivery. Since these grips are made to special order, they are not returnable.

Cat. Nos. 1628-50 and 1628-50B are

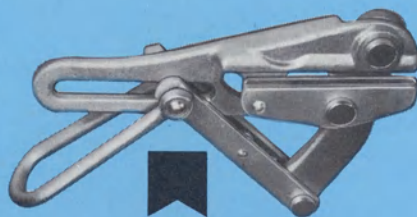
furnished with removable floating jaws which allow maximum coverage of cables to further prevent conductor damage, particularly under heavy load. The removable jaw is held in place by a bolt swaged into the lever arm of grip, secured by a nut and cotter pin. Jaw must be removed to insert cable.

Your order must specify exact outside diameter of cables, circular mills with strand combination or manufacturer's code. Each grip for large diameter cable is made for one size cable only.

Cat. No.	Minimum* Cable Size— inches (mm)	Maximum* Cable Size— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)	Jaw Length inches (cm)
1656AB	3/0 A.C.S.R. .50 (12.70)	500,000 CM A.C.S.R. .90 (22.86)	8000 (3629)	7½ (3.40)	5½ (14.0)
1628-16BP	2 A.C.S.R. .31 (7.87)	477,000 CM A.C.S.R. .88 (22.35)	15,000 (6804)	17 (7.71)	7¼ (18.4)
1628-30	477,000 CM A.C.S.R. .85 (21.59)	1,033,500 CM A.C.S.R. 1.24 (31.50)	20,000 (9072)	27 (12.29)	10¾ (27.3)
1628-30B	477,000 CM A.C.S.R. .85 (21.59)	1,033,500 CM A.C.S.R. 1.24 (31.50)	20,000 (9072)	27 (12.29)	10¾ (27.3)
1628-40	1,033,500 CM A.C.S.R. 1.24 (31.50)	1,590,000 CM A.C.S.R. 1.54 (39.12)	25,000 (11,340)	34 (15.47)	10¾ (27.3)
1628-40B	1,033,500 CM A.C.S.R. 1.24 (31.50)	1,590,000 CM A.C.S.R. 1.54 (39.12)	25,000 (11,340)	34 (15.47)	10¾ (27.3)
1628-50	666,600 CM A.C.S.R. 1.00 (25.40)	2,500,000 CM Alu. 1.82 (46.23)	25,000 (11,340)	34 (15.47)	10¾ (27.3)
1628-50B	666,600 CM A.C.S.R. 1.00 (25.40)	1,780,000 CM A.C.S.R. 1.60 (40.64)	25,000 (11,340)	34 (15.47)	10¾ (27.3)

*Minimum-maximum sizes listed indicate the *unfinished size-range capability* for each Cat. No. Each grip is finished to fit *one specific cable size only* within range shown.

B indicates bronze-lined jaws



Inside
Jaw
Contour

Grips for extra-high-strength cables, messenger, guy strand and conductors

A family of grips for cable sizes from .10" (2.54 mm) to 1.0" (25.4 mm). Double "V" grooves give four point contact, reducing

chance of slipping and providing proper alignment. For larger conductors, see our grips with round inside jaw contour.

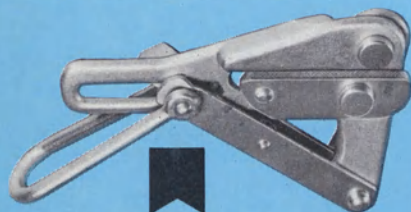
Cat. No.	Minimum Cable Size— inches (mm)	Maximum Cable Size— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)	Jaw Length— inches (cm)
1613-40	.10 (2.54)	.37 (9.40)	4500 (2041)	3 (1.36)	4 (10.2)
1613-40B	.10 (2.54)	.37 (9.40)	4500 (2041)	3 (1.36)	4 (10.2)
1628-5	.16 (4.06)	.55 (13.97)	8000 (3629)	6 (2.72)	5 (12.7)
1628-5B	.16 (4.06)	.55 (13.97)	8000 (3629)	6 (2.72)	5 (12.7)
1628-16	.31 (7.87)	.62 (15.75)	15,000 (6804)	15½ (7.03)	7¼ (18.4)
1628-16B	.31 (7.87)	.62 (15.75)	15,000 (6804)	15½ (7.03)	7¼ (18.4)
1628-17	.50 (12.70)	.75 (19.05)	15,000 (6804)	17 (7.71)	7¼ (18.4)
1628-17B	.50 (12.70)	.75 (19.05)	15,000 (6804)	17 (7.71)	7¼ (18.4)
1628-18	.75 (19.05)	1.00 (25.40)	15,000 (6804)	17 (7.71)	7¼ (18.4)
1628-18B	.75 (19.05)	1.00 (25.40)	15,000 (6804)	17 (7.71)	7¼ (18.4)

B indicates bronze-lined jaws.



GRIPS

Klein "Chicago"® Grips CONT'D



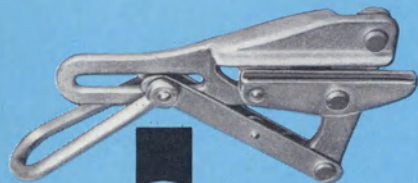
Inside
Jaw
Contour

Grips for bare wire

A lightweight, especially economical grip for working with solid and stranded bare wire from .08" (2 mm) to .20" (5.1 mm). Single "V" groove jaw.

Cat. No.	Minimum Cable Size—inches (mm)	Maximum Cable Size—inches (mm)	Maximum Safe Load—lbs (kg)	Approx. Weight Each—lbs (kg)	Jaw Length—inches (cm)
1613-30	12 B&S Solid .08 (2.03)	4 B&S Solid .20 (5.08)	1500 (680)	1½ (.68)	3 (7.6)
1613-30B	12 B&S Solid .08 (2.03)	4 B&S Solid .20 (5.08)	1500 (680)	1½ (.68)	3 (7.6)

B indicates bronze-lined jaws.



Inside
Jaw
Contour

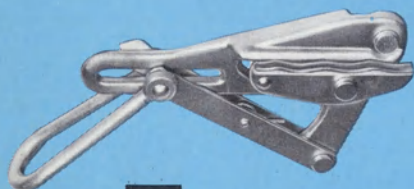
Grips for bare A.C.S.R., aluminum and stranded copper cables

The round, smooth inside jaw contour on this series of grips is ideal for bare A.C.S.R., aluminum and stranded copper cables. The smooth jaws grip with maximum contact; are less likely to damage conductors.

On bare conductors bronze-lined jaws are recommended to guard against surface scratching and galling and to improve the coefficient of friction with certain cables.

Cat. No.	Minimum Cable Size—inches (mm)	Maximum Cable Size—inches (mm)	Maximum Safe Load—lbs (kg)	Approx. Weight Each—lbs (kg)	Jaw Length—inches (cm)
1656-20	6 A.C.S.R. .20 (5.08)	1/0 A.C.S.R. .40 (10.16)	4500 (2041)	3 (1.36)	4 (10.2)
1656-20B	6 A.C.S.R. .20 (5.08)	1/0 A.C.S.R. .40 (10.16)	4500 (2041)	3 (1.36)	4 (10.2)
1656-30	4 A.C.S.R. .25 (6.35)	3/0 A.C.S.R. .50 (12.70)	4500 (2041)	3¾ (1.70)	4¾ (12.1)
1656-30B	4 A.C.S.R. .25 (6.35)	3/0 A.C.S.R. .50 (12.70)	4500 (2041)	3¾ (1.70)	4¾ (12.1)
1656-40	3/0 A.C.S.R. .50 (12.70)	336,400 CM A.C.S.R. .74 (18.80)	8000 (3629)	7½ (3.40)	5½ (14.0)
1656-40B	3/0 A.C.S.R. .50 (12.70)	336,400 CM A.C.S.R. .74 (18.80)	8000 (3629)	7½ (3.40)	5½ (14.0)
1656-50	397,500 CM A.C.S.R. .78 (19.81)	477,000 CM A.C.S.R. .88 (22.35)	8000 (3629)	7½ (3.40)	5½ (14.0)
1656-50B	397,500 CM A.C.S.R. .78 (19.81)	477,000 CM A.C.S.R. .88 (22.35)	8000 (3629)	7½ (3.40)	5½ (14.0)

B indicates bronze-lined jaws.



Inside
Jaw
Contour

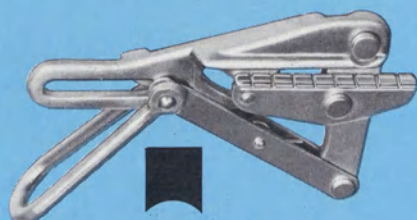
Grips for PVC covered conductors

The serpentine jaws of this grip series are specially machined to allow snaking of insulated conductor through the jaws, reducing danger of slippage which might

result in conductor damage. Eliminates necessity of stripping insulation from conductor. Round inside jaw contour.

Cat. No.	Minimum Conductor—inches (mm)	Maximum Conductor—inches (mm)	Maximum Safe Load—lbs (kg)	Approx. Weight Each—lbs (kg)	Jaw Length—inches (cm)
1659-20	.20 (5.08)	.42 (10.67)	4500 (2041)	3 (1.36)	4 (10.2)
1659-30	.31 (7.87)	.50 (12.70)	4500 (2041)	3¾ (1.70)	4¾ (12.1)
1659-40	.49 (12.45)	.79 (20.07)	8000 (3629)	7¾ (3.52)	5½ (14.0)
1659-50	.79 (20.07)	1.01 (25.65)	8000 (3629)	7¾ (3.52)	5½ (14.0)

Klein "Chicago"® Grips CONT'D



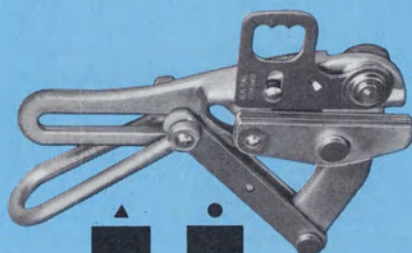
Inside
Jaw
Contour

Grips for weatherproof wire

Round inside jaw contour provides maximum protection for weatherproof coatings. Notches in jaw provide firmer grip on insulation.

Cat. No.	Minimum Cable Size— inches (mm)	Maximum Cable Size— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)	Jaw Length— inches (cm)
1611-20	.20 (5.08)	.40 (10.20)	4500 (2041)	3 (1.36)	4 (10.2)
1611-30	.25 (6.35)	.53 (13.46)	4500 (2041)	3¾ (1.70)	4¾ (12.1)
1611-40	.53 (13.46)	.74 (18.80)	8000 (3629)	7¾ (3.52)	5½ (14.0)
1611-50	.78 (19.81)	.88 (22.35)	8000 (3629)	7¾ (3.52)	5½ (14.0)

Note: Due to various types of weatherproof coatings available, selection of proper grips is determined by outside diameter of cable.



Inside
Jaw
Contour

Hot Line "Chicago" grips

Klein provides Hot Line Grips for both bare and insulated conductors. Grip may be placed on wire with hot line stick. When stick is removed, safety latch closes automatically to guard against grip accidentally disengaging from wire.

Standard Hot Line Grips are not supplied with springs or lock-open feature. When these features are desired, prefix letter "S" before catalog number (example: S1628-5BH).

For Bare Conductors

Cat. No.	Minimum Conductor— inches (mm)	Maximum Conductor— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)	Jaw Length— inches (cm)
▲ 1613-40BH	10 B&S Solid .10 (2.54)	1/0 B&S Strand .37 (9.40)	4500 (2041)	3¾ (1.47)	4 (10.2)
▲ 1628-5BH	6 B&S Solid .16 (4.06)	4/0 A.C.S.R. .55 (13.97)	8000 (3629)	6¾ (2.84)	5 (12.7)
● 1656-20BH	6 A.C.S.R. .20 (5.08)	1/0 A.C.S.R. .40 (10.16)	4500 (2041)	3¾ (1.47)	4 (10.2)
● 1656-30BH	4 A.C.S.R. .25 (6.35)	3/0 A.C.S.R. .50 (12.70)	4500 (2041)	4 (1.81)	4¾ (12.1)
● 1656-40BH	3/0 A.C.S.R. .50 (12.70)	336,400 CM A.C.S.R. .74 (18.80)	8000 (3629)	7¾ (3.52)	5½ (14.0)
● 1656-50BH	397,500 CM A.C.S.R. .78 (19.81)	477,000 CM A.C.S.R. .88 (22.35)	8000 (3629)	7¾ (3.52)	5½ (14.0)
● *1656ABH	3/0 A.C.S.R. .50 (12.70)	500,000 CM A.C.S.R. .90 (22.86)	8000 (3629)	7¾ (3.52)	5½ (14.0)

*For use on aluminum cables where minimum conductor damage is essential, we hold stock of parts, and jaws are milled to fit exact diameter of cable. Range of conductor size is given for general information and is made for one size cable only. Orders must specify exact outside diameter of cable.

For Insulated Conductors Same as 1659 series grips on page 42, except for addition of hot line latch.

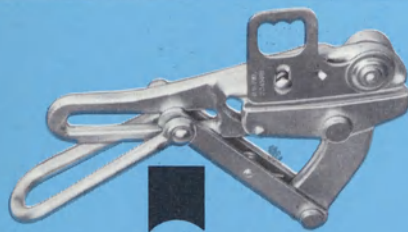
Cat. No.	Minimum Conductor— inches (mm)	Maximum Conductor— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)	Jaw Length— inches (cm)
● 1659-20H	.20 (5.08)	.42 (10.67)	4500 (2041)	3¾ (1.47)	4 (10.2)
● 1659-30H	.31 (7.87)	.50 (12.70)	4500 (2041)	4 (1.81)	4¾ (12.1)
● 1659-40H	.49 (12.45)	.79 (20.07)	8000 (3629)	7¾ (3.52)	5½ (14.0)
● 1659-50H	.79 (20.07)	1.01 (25.65)	8000 (3629)	7¾ (3.52)	5½ (14.0)

Note: Due to various types of PVC and other weatherproof coatings, selection of proper grips is determined by O.D. of cable.



GRIPS

Klein "Chicago"® Grips CONT'D

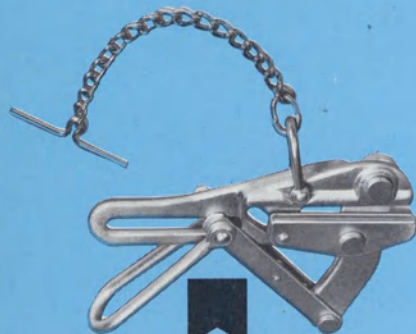


Curved jaw grips for EHS cable

When pulling EHS (extra-high-strength) galvanized steel cable, the galvanizing has a tendency to coat the jaws of the grip, causing the cable to slip. To prevent slippage and damage to the cable,

the jaws of this grip series are milled on a curve. Available as a regular grip, with hot line latch (suffix "H" after Cat. No.; e.g., 1628-73H), and with spring (prefix "S" before Cat. No.; e.g., S1628-73H).

Cat. No.	Minimum Cable Size— inches (mm)	Maximum Cable Size— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)	Jaw Length— inches (cm)
1628-73	.25 (6.35)	.50 (12.70)	8000 (3629)	6 (2.72)	5 (12.7)
1628-73H	.25 (6.35)	.50 (12.70)	8000 (3629)	6 (2.72)	5 (12.7)
S1628-73H	.25 (6.35)	.50 (12.70)	8000 (3629)	6 (2.72)	5 (12.7)



Bell System type "Chicago" grips

1628-5AT is identical to Bell System type "L" strand puller; 1628-16AT is identical to Bell System type "H" strand puller. Both are fitted with chain, toggle and shackle to prevent grip from falling

in case of disengagement from cable.

1613-80 grip is for figure-8 telephone cables. Grip is applied to supporting member of cable.

Cat. No.	Minimum Cable Size— inches (mm)	Maximum Cable Size— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)	Jaw Length— inches (cm)
1628-5AT	.16 (4.06)	.55 (13.97)	8000 (3629)	6 (2.70)	5 (12.7)
1628-16AT	.31 (7.87)	.62 (15.75)	15,000 (6804)	15½ (7.03)	7¼ (18.4)
*1613-80	.14 (3.56)	.109 support wire	1500 (680)	1½ (.68)	3 (7.6)

For support wire .134 and larger, refer to 1659 series. Outside diameter of support wire includes thickness of Polyethylene coating.

*1613-80 grip has round inside jaw contour; no chain.



"Type B" strand puller

This grip is similar to Bell System Type B strand puller. Designed to pull ¼" (6.35 mm) figure-8 telephone cable. Serpentine grooves mesh on insulation and

strand, preventing slippage. Fitted with chain, toggle and shackle to prevent grip from falling in case of disengagement from conductor.

Cat. No.	Minimum Cable Size— inches (mm)	Maximum Cable Size— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)	Jaw Length— inches (cm)
1659-5AT	.20 (5.08)	.37 (9.40)	5000 (2268)	6 (2.72)	5 (12.7)

Parallel Jaw Grip

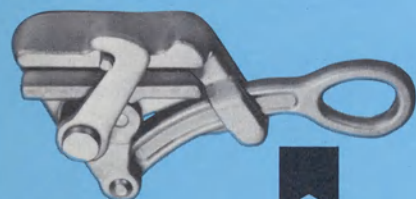
This exceptionally lightweight grip accommodates a wide range of cable sizes. Safety latch guards against falling off cable. Large eye will accommodate tack-

le block hook. Suitable for hot line work when equipped with bronze-lined jaws and latch (Cat. No. 1671-10BH).

Cat. No.	Minimum Cable Size— inches (mm)	Maximum Cable Size— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)	Jaw Length— inches (cm)
1671-10	.375 (9.53)	.75 (19.05)	10,000 (4536)	5 (2.27)	4¾ (11.1)
1671-10B	.375 (9.53)	.75 (19.05)	10,000 (4536)	5½ (2.32)	4¾ (11.1)
1671-10BH	.375 (9.53)	.75 (19.05)	10,000 (4536)	5¼ (2.38)	4¾ (11.1)

B indicates bronze-lined jaws.

BH indicates bronze-lined jaws and latch for hot line work.

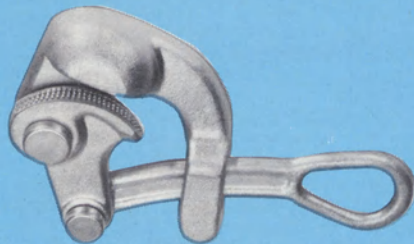


Klein "Haven" Grips

Designed for use where light, compact grip is desired and where conductor damage is not a factor. Gripping pressure of the knurled jaw is applied to $\frac{1}{4}$ " (6.35 mm) area of cable.

1604-20L has swing latch to hold cable in the jaw for added safety.

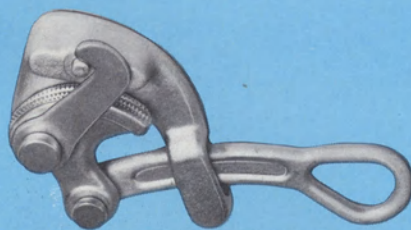
1625-20 can be furnished to fit $\frac{7}{8}$ " (22.2 mm) or 1" (25.4 mm) cable on special order.



Cat. No.	Minimum Cable Size— inches (mm)	Maximum Cable Size— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)
1604-10	14 B&S .06 (1.52)	2 B&S .25 (6.35)	2500 (1134)	1 (.45)
1604-20	7 B&S .14 (3.56)	Steel Strand .50 (12.70)	5000 (2268)	2½ (1.13)



Cat. No.	Minimum Cable Size— inches (mm)	Maximum Cable Size— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)
1604-20L	7 B&S .14 (3.56)	Steel Strand .50 (12.70)	5000 (2268)	2½ (1.13)



Cat. No.	Minimum Cable Size— inches (mm)	Maximum Cable Size— inches (mm)	Maximum Safe Load— lbs (kg)	Approx. Weight Each— lbs (kg)
1625-20	2 B&S .25 (6.35)	Wire Rope .75 (19.05)	8000 (3629)	3½ (1.59)
1625-20 $\frac{7}{8}$.38 (9.53)	Wire Rope .88 (22.23)	8000 (3629)	3½ (1.59)
1625-20 1	.50 (12.70)	Wire Rope 1.00 (25.40)	8000 (3629)	3½ (1.59)

AWG/B&S Wire Gauges

Diameters of American (AWG) or Brown & Sharpe (B&S) Wire Gauges

No. of Wire Gauge	American (AWG) or Brown & Sharpe (B&S)—inches
0000	.460
000	.40964
00	.3648
0	.32486
1	.2893
2	.25763
3	.22942
4	.20431
5	.18194
6	.16202
7	.14428
8	.12849
9	.11443
10	.10189
11	.090742
12	.080808
13	.071961
14	.064084
15	.057068
16	.05082
17	.045257
18	.040303
19	.03589
20	.031961
21	.028462
22	.025347
23	.022571
24	.0201
25	.0179
26	.01594
27	.014195
28	.012641
29	.011257
30	.010025
31	.008928
32	.00795
33	.00708
34	.006304
35	.005614
36	.005
37	.004453
38	.003965
39	.003531
40	.003144



GRIPS

Diameters, stranding and ultimate strength of A.C.S.R. and All-Aluminum bare cables

Cable Size	A.C.S.R.				ALL-ALUMINUM			
	Code Word	Number of Alum. & Steel Strands	Diameter Inches	Ultimate Strength in Pounds (Class A Galv. Steel)	Code Word	Number of Strands	Diameter Inches	Ultimate Strength in Pounds
6	Turkey	6x1	.198	1190	Peachbell	7	.184	563
4	Swan	6x1	.250	1860	Rose	7	.232	881
4	Swanate	7x1	.257	2360	—	—	—	—
2	Sparrow	6x1	.316	2850	Iris	7	.292	1350
2	Sparate	7x1	.325	3640	—	—	—	—
1	Robin	6x1	.354	3550	Pansy	7	.328	1640
1/0	Raven	6x1	.398	4380	Poppy	7	.368	1990
2/0	Quail	6x1	.447	5300	Aster	7	.414	2510
3/0	Pigeon	6x1	.502	6620	Phlox	7	.464	3040
4/0	Penguin	6x1	.563	8350	Oxlip	7	.522	3830
266800 C.M.	Waxwing	18x1	.609	6880	Daisy	7	.586	4830
266800	Partridge	26x7	.642	11,300	Laurel	19	.593	4970
300000	Ostrich	26x7	.680	12,700	—	—	—	—
336400	Oriole	30x7	.741	17,300	Tulip	19	.666	6150
336400	Linnet	26x7	.720	14,100	—	—	—	—
397500	Lark	30x7	.806	20,300	Canna	19	.724	7110
397500	Ibis	26x7	.783	16,300	—	—	—	—
477000	Hen	30x7	.883	23,800	Cosmos	19	.792	8360
477000	Hawk	26x7	.858	19,500	Syringa	37	.795	8690
500000	Heron	30x7	.904	24,950	Zinnia	19	.811	8760
556500	Eagle	30x7	.953	27,800	Dahlia	19	.856	9750
556500	Dove	26x7	.927	22,600	Mistletoe	37	.858	9940
605000	Squab	26x7	.966	24,300	—	—	—	—
605000	Peacock	24x7	.953	21,600	—	—	—	—
636000	Egret	30x19	1.019	31,500	Orchid	37	.918	11,400
636000	Grosbeak	26x7	.990	25,200	—	—	—	—
636000	Goose	54x7	.977	23,300	—	—	—	—
666600	Flamingo	24x7	1.000	23,700	—	—	—	—
715500	Redwing	30x19	1.081	34,600	Violet	37	.974	12,800
715500	Starling	26x7	1.051	28,400	Nasturtium	61	.975	13,100
715500	Crow	54x7	1.036	25,900	—	—	—	—
795000	Mallard	30x19	1.140	38,400	Arbutus	37	1.026	13,900
795000	Drake	26x7	1.108	31,500	Lilac	61	1.028	14,300
795000	Condor	54x7	1.092	28,200	—	—	—	—
874500	Crane	54x7	1.146	31,000	Anemone	37	1.076	15,000
900000	Canary	54x7	1.162	31,900	—	—	—	—
954000	Cardinal	54x7	1.196	33,800	Magnolia	37	1.124	16,400
1033500	Curlew	54x7	1.245	36,600	Bluebell	37	1.170	17,700
1113000	Finch	54x19	1.293	39,100	Marigold	61	1.216	19,700
1192500	Grackle	54x19	1.338	41,900	Hawthorn	61	1.258	21,100
1272000	Pheasant	54x19	1.382	43,600	Narcissus	61	1.297	22,000
1351500	Martin	54x19	1.424	46,300	Columbine	61	1.339	23,400
1431000	Plover	54x19	1.465	49,100	Carnation	61	1.379	24,300
1510500	Parrot	54x19	1.505	51,700	—	—	—	—
1510500	—	—	—	—	Gladiolus	61	1.417	25,600
1590000	Falcon	54x19	1.545	54,500	Coreopsis	61	1.453	27,000
80000	Grouse	8x1	.367	5200	—	—	—	—
101800	Petrel	12x7	.461	10,400	—	—	—	—
110800	Minorca	12x7	.481	11,300	—	—	—	—
134600	Leghorn	12x7	.530	13,600	—	—	—	—
159000	Guinea	12x7	.576	16,000	—	—	—	—
176900	Dotterel	12x7	.607	17,300	—	—	—	—
190800	Dorking	12x7	.631	18,700	—	—	—	—
203200	Brahma	16x19	.714	28,400	—	—	—	—
211300	Cochin	12x7	.664	20,700	—	—	—	—

The above information is from data published by Reynolds Metals Co. For diameters of weatherproof cables see tables published by the manufacturer.



Safety Snap Hooks

These drop-forged snap hooks are designed for use in conjunction with personal safety equipment. All three styles meet or exceed current OSHA and ANSI standards for safety hardware used on belts, harnesses, straps and lanyards.



Ladder rung and re-bar hook

This drop-forged steel hook is designed to snap over ladder rungs or reinforcement bars used in construction. Used on Klein No. 5490 rope lanyards as well as on our No. 5411 snap safety belt. Maximum safe load 5000 lbs (2250 kg).

Cat. No.	Overall Length	Eye I.D.	Throat Opening
457-5	6 1/4" (159 mm)	1" (25 mm)	1 1/2" (38 mm)



Rope snap hook

Versatile, general purpose, drop-forged snap hook. Standard on most Klein lanyards. Maximum safe load 5000 lbs (2250 kg).

Cat. No.	Overall Length	Eye I.D.	Throat Opening
468-5	5 1/4" (133 mm)	1 1/8" (29 mm)	1 1/16" (17 mm)



Klein-Lok rope snap hook **NEW**

Here is a hook that is the ultimate in safety. Double-latch mechanism guards against accidental opening, yet can be conveniently operated with one hand. Made of drop-forged steel. Maximum safe load 5000 lbs (2250 kg).

Cat. No.	Overall Length	Eye I.D.	Throat Opening
KL468	5 1/4" (133 mm)	1 1/8" (29 mm)	1 1/16" (17 mm)

Hooks for Block & Tackle



Anchor hook

Standard on Klein block & tackle No. 1802-30 and H1802-30, this drop-forged hook is designed to slip under insulator and engage pin of cross arm. Maximum safe load 1500 lbs (675 kg).

Cat. No.	Overall Length	Eye I.D.	Throat Opening
258	5 1/2" (140 mm)	5/8" (16 mm)	3 1/4" (83 mm)



Swivel anchor hook

The swivel clevis on this drop-forged hook will engage with snap on Klein block & tackle No. 1802-30 and H1802-30. Swivel prevents twisting and kinking of rope. Maximum safe load 1500 lbs (675 kg).

Cat. No.	Overall Length	Eye I.D.	Throat Opening
259	6 1/2" (165 mm)	1" (25 mm)	3 1/4" (83 mm)



455



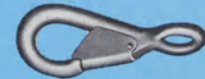
455S

Heavy-duty utility snap hook

Designed to prevent hook from disengaging even on a slacked line. Snaps on with one hand. These drop-forged hooks may be used on any conventional steel block, 4" (10 cm) or smaller. Maximum safe load 8000 lbs (3629 kg).

Cat. No.	Overall Length	Eye I.D.	Throat Opening
455	4 1/2" (114 mm)	15/16" (24 mm)	1" (25 mm)
455-1 1/4	4 1/2" (114 mm)	1 1/4" (32 mm)	1" (25 mm)
455S	7 1/2" (191 mm)	swivel eye 3/4" (19 mm) long.	1" (25 mm)

Hand Line Snap Hooks



Heavy-duty hook with keeper

General purpose drop-forged hook with eye at 90° to snap opening. Maximum safe load 1500 lbs (675 kg).

Cat. No.	Overall Length	Eye I.D.	Throat Opening
443A	5 1/2" (138 mm)	1" (25 mm)	3/4" (19 mm)



Swivel hook with plunger latch

Drop-forged steel with swivel clevis and quick acting plunger-style latch. Designed to take 1/2" (13 mm) or lighter hand lines. Swivel action prevents accidental fouling into secondary wires. Maximum safe load 750 lbs (338 kg).

Cat. No.	Overall Length	Eye I.D.	Throat Opening
470	5" (127 mm)	1" (25 mm)	5/8" (16 mm)

Safety Note:

Do not rely on the feel or sound of snap hook engaging. Always check visually for proper engagement of the snap hook.



SNAP & ANCHOR HOOKS/BLOCK & TACKLE

Hand Line Snap Hooks CONT'D



Cast zinc swivel snap hook

Made especially for use on hoisting buckets. **Not to be used on safety lines.** Any Klein bucket or line hose bag may be equipped with this snap by adding letter S after the catalog number. May be ordered separately. Maximum safe load 150 lbs (68 kg).

Cat. No.	Overall Length	Eye I.D.	Throat Opening
2012	5" (127 mm)	3/4" (19 mm)	5/8" (16 mm)



Spreader hook

Drop-forged, welded construction designed for use with Klein No. 5483 and 5484 multi-purpose safety harnesses. Spreader hook affords greater comfort and freedom of movement when harness is worn. For use primarily as a positioning device. Maximum safe load 2500 lbs (1125 kg).

Cat. No.	Overall Length	Eye I.D.	Throat Opening
456	8" (203 mm)	1 1/8" (29 mm)	1 1/16" (17 mm)

Order from your local distributor.

To better serve our customers, Klein Tools, Inc. has developed extensive national distribution through distributors. These distributors maintain a large stock of Klein tools and equipment in your own area and can fill your order rapidly. For the occasional item not in stock, our distributors receive prompt delivery from the factory. Order through your local distributor.

Self Locking Block & Tackle



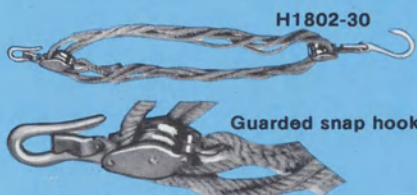
These light, galvanized steel shell blocks are fitted with snubbing hooks to lock the load in any position. Sheaves are strong yet lightweight aluminum alloy with all-bronze bushings.

Choose either drop forged hook #258 or swivel hook #259. Both hooks fit under insulator and engage pin on cross arm.

All H-series block and tackle comes equipped with guarded snaps. The nose of each snap hook is lengthened to extend over the latch or keeper for extra security.

All rope used in Klein block and tackle is highest quality four-strand. Rope is not spliced to block unless specified. Rope spliced to block is available at additional cost.

Maximum safe load for all block and tackle is 1200 lbs (540 kg).



Cat. No.	Description
1802-30	Furnished with 25' (7.6 m) of 3/8" (10 mm) rope and detachable hook #258.
1802-30 S/R	Same as above but with rope spliced to block.
H1802-30	Same as 1802-30 except comes equipped with guarded hook (nose extends over the keeper).
H1802-30 S/R	Same as above but with rope spliced to block.
1802-30S	Furnished with 25' (7.6 m) of 3/8" (10 mm) rope and detachable swivel anchor hook #259.
1802-30S S/R	Same as above but with rope spliced to block.
H1802-30S	Same as 1802-30S except comes with guarded hook (nose extends over the keeper).
H1802-30S S/R	Same as above but with rope spliced to block.

Blocks without ropes and hooks

Cat. No.	Description
267	Plain block of light galvanized steel and aluminum alloy. Sheaves have bronze bushings.
268	Same as 267 but with eye to splice line to block.
H267	Same as 267 but nose extends over keeper.
H268	Same as 268 but nose extends over keeper.



Howe wire tool

Strap is made of tough nylon webbing. Swivel hook is forged steel with large opening. Shank of hook lengthened to reach under insulator. Other end has locking device to hold the load at any distance. All metal parts are galvanized. Maximum safe load 500 lbs (225 kg).

Cat. No.	Description
1702-20N	Nylon strap 1" (25 mm) wide, 7' (2.1 m) long.
241N	Replacement nylon strap for above.



"Chicago" lineman's tool

Combines the Howe Wire Tool with a "Chicago" Grip, Cat. No. 1613-30. Other grips can be provided in this combination on special order. Maximum safe load 500 lbs (225 kg).

Cat. No.	Description
1700-30N	For 6 wire and smaller, down to 12 B&S with 1"x7' (25 mm x 2.1 m) nylon strap.
241N	Replacement nylon strap for above.

Non-Metallic Slings

Klein non-metallic slings are made of woven, orange nylon web, with a contrasting yellow center core as a wear warning signal. Available in 1" (25 mm) through 4" (102 mm) widths. Where extra abrasion resistance is required, the eyes and contact sections can be lined with tough latigo leather. For extra strength without additional sling width, Klein double thick slings are recommended. To order, select from catalog numbers bearing a DT (Double Thick) suffix.

Klein slings conform to and bend with the load across the width of the sling. Rigged in a basket hitch they provide a

gentle flexing action around the load; rigged in a choke hitch, they conform to the arcs of the load, giving maximum support.

Our slings have no sharp edges to cut into the load or endanger the worker's hands. High gripping action reduces the danger of the load slipping.

All Klein slings carry the required OSHA identification tags.

ALL SLINGS ARE 3' (91 CM) LENGTH STANDARD. OTHER LENGTHS AVAILABLE.

Rated Capacity (Maximum Working Load)

OSHA Table N-184-22.

Width in inches, (mm)	Single Ply Double Eye Slings—Klein 5603DE Series		Standard Double Eye Slings Klein 5602DE Series	
	Vertical Basket lbs (kg)	Choker lbs (kg)	Vertical Basket lbs (kg)	Choker lbs (kg)
1" (25)	3200 (1440)	1200 (540)	5200 (2340)	2100 (945)
2" (51)	6400 (2880)	2400 (1080)	10,200 (4590)	4100 (1845)
3" (76)	9600 (4320)	3600 (1620)	15,400 (6930)	6200 (2790)
4" (102)	12,800 (5760)	4800 (2160)	20,400 (9180)	8200 (3690)

Width in inches, (mm)	Endless Slings—Klein 5601E Series		Return Eye Slings—Klein 5600RE Series	
	Vertical Basket lbs (kg)	Choker lbs (kg)	Vertical Basket lbs (kg)	Choker lbs (kg)
1" (25)	5200 (2340)	2100 (945)	—	—
1" Double Thick	9300 (4185)	3700 (1665)	—	—
2" (51)	10,200 (4590)	4100 (1845)	5200 (2340)	2100 (945)
2" Double Thick	18,300 (8235)	7300 (3285)	9300 (4185)	3700 (1665)
3" (76)	15,400 (6930)	6200 (2790)	—	—
4" (102)	20,400 (9180)	8200 (3690)	10,200 (4590)	4100 (1845)
4" Double Thick	—	—	18,300 (8235)	7300 (3285)

5603DE Single Ply Double Eye Sling. 7" Eye. 7" overlap at sewing.

Single ply double eye

Cat. No.	Width
5603DE-1	1" (25 mm)
5603DE-2	2" (51 mm)
5603DE-3	3" (76 mm)
5603DE-4	4" (102 mm)

5602DE Standard Double Eye Sling. 7" Eye. 7" overlap at sewing.

Standard double eye

Cat. No.	Width
5602DE-1	1" (25 mm)
5602DE-2	2" (51 mm)
5602DE-3	3" (76 mm)
5602DE-4	4" (102 mm)

5601E Endless Sling. 7" overlap at sewing.

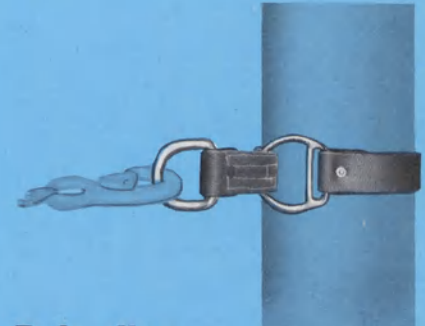
Endless

Cat. No.	Width
5601E-1	1" (25 mm)
5601E-1DT	1" (25 mm)
5601E-2	2" (51 mm)
5601E-2DT	2" (51 mm)
5601E-3	3" (76 mm)
5601E-4	4" (102 mm)

5600RE Return Eye Sling. 7" Eye. If wear pads desired specify on order.

Return eye

Cat. No.	Width
5600RE-2	2" (51 mm)
5600RE-2DT	2" (51 mm)
5600RE-4	4" (102 mm)
5600RE-4DT	4" (102 mm)



Pole sling

Made of 1 3/4" wide (44 mm) nylon web stitched with nylon thread. Copper rivets with burrs at the point of wear. Unlimited uses where a running loop wrap around pole is desired. Non-conductive. Resistant to oil, creosote and moisture. Other lengths are available on special order.

Cat. No.	Rated Capacity (Maximum Working Load)	Length
5606	Choke Hitch: 500 lbs (225 kg) Basket Hitch: 1200 lbs (540 kg)	30" (76 cm)



Crossarm sling

Made of 12 plies of nylon laminated together with neoprene and preformed prior to vulcanization for ease in placing around the crossarm. 1" wide (25 mm). The D rings are 1/4" (6 mm) welded wire securely riveted with copper rivets and burrs. Non-conductive. Resistant to moisture, oil and creosote. Other lengths are available on special order.

Cat. No.	Rated Capacity (Maximum Working Load)	Length
5607	Basket Hitch: 1000 lbs (450 kg)	16 1/2" (42 cm)



FIBER AND LEATHER TOOL GUARDS/TOOL BELTS

Tool Guards

Protect both tool and user with a Klein guard for all of your edged tools.

Klein guards are made of 1/16" (1.6 mm) vulcanized hard fiber, securely riveted and equipped with adjustable web straps to hold the tool. Guards can also be equipped with a snap for hanging on the workman's belt.

We also supply tool guards in 1/8" (3 mm) full grain leather upon request at additional cost. Fiber or leather custom-made guards are also available for edged hand tools of any design. For a quotation of price on custom-made guards, please supply a dimensional sketch or paper tracing.

Hand saw guards



Cat. No.	Description
5502	26" (66 cm) hand saw guard, fiber.
5503	30" (76 cm) docking saw guard, fiber.
5505	26" (66 cm) pruning saw guard, fiber.
5506	24" (61 cm) tuttle-tooth pruning saw guard, fiber.



Cat. No.	Description
5507	Pole pruning saw guard, fiber.



Cat. No.	Description
5508	Cable saw guard, fiber.



Cat. No.	Description
5522	26" (66 cm) curved pruning saw guard, fiber. Will accommodate shorter lengths.

Axe and hatchet guards



Cat. No.	Description
5509	3 1/2 lb (1.6 kg) axe or hatchet guard, fiber.
5524	Double bit axe guard, fiber.

Splitting knife guards



Cat. No.	Description
5574L	Splitting or chipping knife guard, leather. Fits Klein knife, Cat. No. 1515-1.



Cat. No.	Description
5574S	Splitting or chipping knife guard, leather. Fits Klein knife, Cat. No. 1515-S.

Miscellaneous tool guards



Cat. No.	Description
5511	Bush hook guard, fiber.



Cat. No.	Description
5510	Tree trimmer guard, fiber, for No. 11 head.
5512	Tree trimmer guard, fiber, for No. 12 head.



Cat. No.	Description
5514	Ditch bank blade guard with hinged side, fiber.



Cat. No.	Description
5515	2" (51 mm) width chisel guard, fiber.



Cat. No.	Description
5517	Cant hook guard, fiber.

Tool Belts

Klein offers lightweight, durable tool belts in leather, web belting and woven cotton to meet a broad variety of requirements and preference. Klein belts can be used with the applicable tool pouches, pockets and holders you see on adjoining pages.

Important note: The tool belts on this page and page 51 are not safety belts and should never be used as such. Klein safety belts are shown on pages 60-63.



Fully-adjustable woven cotton belt

This economical lightweight belt of woven cotton has a sliding adjuster that allows a quick fit through the entire range of waist sizes up to 58" (147 cm). Provides easy adjustment for changes in sizes required by heavy winter clothing. Clasp buckle holds belt firmly but permits easy release.

Cat. No.	Size Adjustable	Belt Width
5225	30"-58" (76-147 cm)	2" (51 mm)



Heavy-duty extra-wide leather belt

This rugged 2" wide (51 mm) belt is made of heavy strap leather and equipped with a double tongue buckle to stand up to years of service.

Cat. No.	Size Adjustable	Belt Width
5415	36"-44" (91-112 cm)	2" (51 mm)
5415S	32"-40" (81-102 cm)	2" (51 mm)
5415L	40"-48" (102-122 cm)	2" (51 mm)
5415XL	44"-52" (112-132 cm)	2" (51 mm)

Tool Belts CONT'D



Leather utility waist belt

The durability of strap leather in a low-cost tool belt. Designed to carry light-weight tool pouches.

Cat. No.	Size Adjustable	Belt Width
5201	33"-45" (84-114 cm)	1" (25 mm)



Lightweight web belt with chain tape thong

This lightweight web belt comes with a strap leather tool loop and chain tape thong. Furnished with a friction buckle.

Cat. No.	Size Adjustable	Belt Width
5227M	32"-40" (81-102 cm)	1½" (38 mm)
5227L	40"-48" (102-122 cm)	1½" (38 mm)
5227XL	48"-56" (122-142 cm)	1½" (38 mm)



Leather belt with tool loops and tape thong

Our finest lightweight belt, made of strap leather with tool loops and chain tape thong. This Klein belt may be used with any of the tool pouches, pockets and holders on the adjoining pages.

Cat. No.	Size Adjustable	Belt Width
5207M	32"-40" (81-102 cm)	1½" (38 mm)
5207L	38"-46" (97-117 cm)	1½" (38 mm)
5207XL	46"-54" (117-137 cm)	1½" (38 mm)

General Purpose Tool Pouches

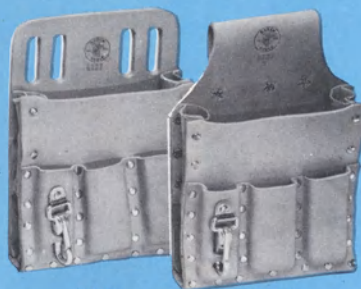
All Klein tool pouches are made of top-quality leather, many of them specially designed to suit specific needs of electricians, telephone installers, CATV installers and other professionals. A wide variety of designs insures that there is a pouch to suit virtually every individual preference and need.

Pouches with slots fit on belts up to 1¾" wide (44 mm), except as otherwise noted. Pouches with tunnel loops fit on belts up to 2" wide (51 mm), except as otherwise noted.



A high-quality leather pouch with extra-large gusseted utility pocket, two plier pockets, two screwdriver pockets and knife snap.

Cat. No.	Nominal Overall Size
5126	6"x8¾" (15x22 cm)



5127

5127T

Similar to pouch 5126 but has three plier pockets rather than two. Available with belt slots (5127) or with a tunnel loop (5127T).

Cat. No.	Nominal Overall Size
5127	7"x10" (18x25 cm)
5127T	7"x10" (18x25 cm)



This multi-purpose pouch provides space for an extraordinary number of tools. Four large gusseted utility pockets. Two plier pockets. Two pockets for screwdrivers. Knife snap.

Cat. No.	Nominal Overall Size
5164	6¾"x9¾" (17x25 cm)



A multi-purpose pouch of finest chrome leather—soft and pliable. Moisture resistant to retain flexibility even after being wet and dried. Has two large gusseted utility pockets, two screwdriver pockets, hammer loop, three plier pockets and one chain tape thong. Tunnel loop for attaching to belts up to 3" wide (76 mm).

Cat. No.	Nominal Overall Size
5166	7"x10" (18x25 cm)



This high-quality leather pouch is curved to fit the hip for added comfort. Has large utility pocket, two plier pockets, two screwdriver pockets and a knife snap. Fits belts up to 1½" wide (38 mm).

Cat. No.	Nominal Overall Size
5150	8¾"x9¾" (22x23 cm)



TOOL POUCHES

General Purpose Tool Pouches CONT'D



A strap leather pouch with seven individual compartments for pliers, screwdrivers and other tools. Has loop for hanging on belt.

Cat. No. 5148 **Nominal Overall Size**
8"x9" (20x23 cm)



Our largest pouch, this extra spacious tool carrier is contoured to fit the hip for added comfort. Large utility pocket provides ample room for assorted tools. A smaller utility pocket, two plier pockets, two screwdriver pockets, a chain tape thong and knife snap are provided.

Cat. No. 5168 **Nominal Overall Size**
9"x11" (23x28 cm)



Here is a versatile pouch favored by many telephone installers. Made of highest grade leather, this pouch is riveted throughout to assure long life. Ten separate compartments provide places for a wide variety of pliers, screwdrivers and other tools. Equipped with ring and tape thong.

Cat. No. 5190 **Nominal Overall Size**
6"x8¾" (15x22 cm)



A strap leather pouch with large rear pocket for assorted tools and two front pockets for diagonal and long nose pliers. Has loop for hanging on 1" wide (25 mm) belt.

Cat. No. 5149 **Nominal Overall Size**
5½"x7" (14x18 cm)



Strap leather utility pouch. 1" (25 mm) reinforced gusset. Has 2" (51 mm) outside pockets; loop for hanging on 1" wide (25 mm) belt.

Cat. No. 5145 **Nominal Overall Size**
5¼"x7" (13x18 cm)



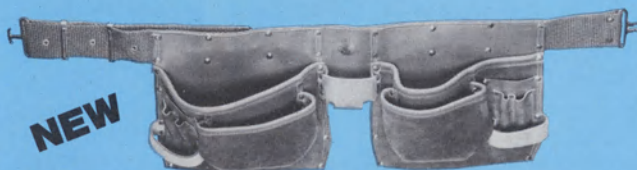
Made of high-quality harness leather, this handy pouch is ideal for carrying pliers and other tools in the hip pocket. Prevents wear and tearing of clothes, discomfort and possible injury.

Cat. No. 5111 **Nominal Overall Size**
5"x7" (13x18 cm)



Here is a pouch that can be hooked on belt or slipped in almost any pocket. A convenient means of keeping track of small, easily lost tools. Flap snaps back to form loops for belts up to 3" wide (76 mm).

Cat. No. 5175 **Nominal Overall Size**
4½"x7" (11x18 cm)



Leather utility apron

An amazingly versatile and roomy double-pouch apron for use by construction workers and carpenters. Double-pouch design allows unrestricted leg movement. Two large pouches plus two smaller pouches for holding nails or bolts. All four are leather-bound for long wear. Two pockets for holding pliers or other small tools; four slots for punches or nail sets; two hammer loops. Center pocket for steel tape. Apron is reinforced throughout with rust-proof rivets. Heavy-duty 2¼" wide (57 mm) web belt has army-style buckle, snap and slides.

Cat. No. 42242 **Size Adjustable**
33"-44" (84-112 cm)

Order from your local distributor.

Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.

Lineman's Tool Pockets

A selection of "holsters" that allow you to "draw" the right tool every time. Especially favored by telecommunications and power utility linemen, these tool pockets are crafted from high-quality harness leather that molds itself to the shape of the tool. Styles are available to hold two, three or four tools in addition to a knife snap. Klein lineman's pockets with slots fit belts up to 2" wide (51 mm) or can be riveted to body belt tab. No. 5118RT holder has tunnel loop for sliding on belt up to 3" wide (76 mm).



5118PRS

Cat. No.	Description	Nominal Size
5118PRS	3 pockets for pliers, folding rule and screwdriver.	6¾"x9½" (17x24 cm)
5118PRS	Same as above but has a two-way knife snap.	



5118R

Cat. No.	Description	Nominal Size
5118R	One pocket for side cutting plier; one for six-foot folding rule.	4¾"x8" (12x20 cm)
5118RT	Same as above but has tunnel loop to permit use on wider belt.	4½"x12½" (11x32 cm)



5118RT



5118C

Cat. No.	Description	Nominal Size
5118C	Four pockets to hold plier, rule, screwdriver and adjustable wrench; plus a two-way knife snap. No exposed rivets in back.	7"x10½" (18x27 cm)



5118S

Cat. No.	Description	Nominal Size
5118S	One pocket for side cutting plier and one for screwdriver.	4"x8" (10x20 cm)



5118K

Cat. No.	Description	Nominal Size
5118K	One pocket for side cutting plier; one for skinning knife.	4½"x9" (11x23 cm)

Lineman's knife holder



5163

This lineman's knife holder is designed for Klein skinning knives No. 1560-3 and 1570-3LR. Harness leather holder is slotted for attaching to belts up to 2" wide (51 mm).

Cat. No.	Nominal Size
5163	3"x9" (8x23 cm)

Tool Holders

Plier holders



5107-6

Made of high-quality harness leather. Have slots for attaching to belts up to 2" wide (51 mm) or can be riveted on to body belt tab. Plier nose protrudes through opening at bottom. Two sizes available: 5107-6 holds 6" or 7" pliers, 5107-9 holds 8" or 9" pliers.

Cat. No.	Nominal Size
5107-6	3½"x8½" (9x22 cm)
5107-9	3¾"x11" (10x28 cm)



5112

Pliers nose does not protrude from these high-quality harness leather holders. Bottom is vented to prevent collection of dirt or water. 5112 has slots for attaching to belts up to 2" wide (51 mm) or may be riveted on. 5112T has tunnel loop to permit use on 3" (76 mm) belt.

Cat. No.	Nominal Size
5112	3½"x9" (9x23 cm)
5112T	3¾"x12½" (8x32 cm)



5112T

Hammer holders



5457

High-quality harness leather holders. No. 5457 is slotted for attaching to 2" wide (51 mm) belt. No. 5457T has tunnel loop to permit use on wider belts or to slide over D rings, buckles and other accessories.

Cat. No.	Nominal Size
5457	4¼"x10½" (11x27 cm)
5457T	4¼"x12" (11x30 cm)



5457T



5456

Here are two strap leather hammer holders with wire hammer loop riveted to leather panel. Leather lined. 5456 is slotted for attaching to belts up to 2" wide (51 mm). 5456-T has tunnel loop to permit use on 3" (76 mm) belts.

Cat. No.	Nominal Size
5456	4½"x8" (11x20 cm)
5456-T	4¼"x9½" (11x24 cm)



5456-T

Wrench holders



5460

Leather wrench holders have slots for two wrenches. 5460 is slotted for sliding on 2" (51 mm) belt; 5459-T has tunnel loop to permit use on 3" (76 mm) belts.

Cat. No.	Nominal Size
5460	6"x8" (15x20 cm)
5459-T	6"x9½" (15x24 cm)



5459-T



TOOL HOLDERS/SAFETY CAP/TOOL BAGS

Tool Holders CONT'D



5100

Scissors holders

A high-quality strap leather holder designed for Klein electrician's scissors, Cat. Nos. 2100-5 and 2100-7. Loop at back for attaching to belts up to 2" wide (51 mm).

Cat. No. 5100 Nominal Size 2 1/4"x8" (6x20 cm)

Economical scissors holder made of strap leather, riveted with clip on back for attaching to belt. Also has slots through which belts up to 1 1/2" wide (38 mm) may be inserted. Designed to hold Klein scissors, Cat. Nos. 2100-5 and 2100-7.

Cat. No. 5101 Nominal Size 1 1/2"x6 1/2" (4x17 cm)



5101



5129

Flashlight holder

A high-quality strap leather holder designed for a standard two-cell flashlight. Slotted to fit belts up to 1 3/4" wide (44 mm).

Cat. No. 5129 Nominal Size 3"x8" (8x20 cm)

Voltage tester holder

Designed to hold most standard voltage testers. Equipped with a snap to prevent the instrument from falling out of holder. Slotted to fit belts up to 1 3/4" wide (44 mm).

Cat. No. 5138 Nominal Size 3"x8" (8x20 cm)



5138



5458

Snap loop

Leather loop with snap hook. Slides on belts up to 4" wide (102 mm).

Cat. No. 5458

Knife holder

Leather holder designed to hold Klein utility knife, Cat. No. 44100. Slotted to fit belts up to 2" wide (51 mm).

Cat. No. 5185 Nominal Size 3"x8" (8x20 cm)



5185

Safety Cap & Liner



NEW



Safety cap meets OSHA requirements for Class "B" cap; Federal Specifications GGG-H-142G and GGG-H-177B; and ANSI Z89.1—1969 Class A, and ANSI Z89.2—1971 Class B. Made of high-density polyethylene to protect against impact, chemicals and high voltage. Design of the 4-point inside suspension gives extra protection by moving upward into wedge-shaped sockets upon impact, absorbing much of the force.

Another unique feature of the Klein Safety Cap is its nape strap which holds the cap firmly in place, eliminating the need for a chin strap in most instances. Straps and bands are washable, shrink-and stretch-proof. A porous brow pad promotes ventilation for maximum comfort. Cap adjustable to fit all sizes.

For added warmth, Klein also offers a Safety Cap Liner of 100% orlon. This extremely lightweight, spark-resistant liner sheds water and has an absorption factor of essentially zero. Four slots are provided for fitting the liner *between* the cap shell and suspension so that the cap can't "ride up" when the liner is utilized. An extra-large button makes fastening the liner chin-strap easy, even when wearing gloves. Liner may be buttoned over top of cap, out of the way when not in use.

Cat. No.	Description
60005	Safety orange, polyethylene safety cap.
60007	Blue orlon cap liner.

Tool Bags



Canvas tool bags

This durable bag is made of one-piece No. 8 white canvas covered on the bottom and 3" (76 mm) up the sides with Naugahyde, cemented and lock stitched. Bottom is protected with steel studs. Mouth has steel frame. Handles are harness leather. All bags have two retaining straps and buckles. Available with shoulder strap on special order at additional cost. Width is 6" (15 cm).

Cat. No.	Length	Depth
5102-12	12" (30 cm)	10" (25 cm)
5102-14	14" (36 cm)	14" (36 cm)
5102-16	16" (41 cm)	14" (36 cm)
5102-18	18" (46 cm)	14" (36 cm)
5102-20	20" (51 cm)	15" (38 cm)
5102-22	22" (56 cm)	15" (38 cm)
5102-24	24" (61 cm)	15" (38 cm)



Tool Bags CONT'D

An extra-strong bag of finest No. 8 white canvas. One piece, covered on bottom and a full 8" (20 cm) up the sides with Naugahyde that is cemented and lock stitched. Bottom protected with steel studs. Mouth has steel frame. Harness leather handles with two retaining straps and buckles. Furnished with shoulder strap on special order at additional cost. Width is 6" (15 cm).



Cat. No.	Length	Depth
5105-20	20" (51 cm)	15" (38 cm)
5105-22	22" (56 cm)	15" (38 cm)
5105-24	24" (61 cm)	15" (38 cm)

Deluxe leather bag

Here is a tool bag that will last from apprenticeship to retirement. This fine harness leather bag has a shoulder strap combined with pad and hand strap. The bottom is three ply and is protected with steel studs. Retaining straps pass all the way around the back for extra security. All seams are lock stitched with waxed nylon thread. 7" (18 cm) wide.



Cat. No.	Length	Depth
5108-18	18" (46 cm)	8" (20 cm)
5108-20	20" (51 cm)	8" (20 cm)
5108-24	24" (61 cm)	8" (20 cm)

Lineman's extra-large equipment bag

Orange vinyl-coated nylon fabric bag. Extra large to hold more. Naugahyde reinforced bottom extends 3" (76 mm) up the sides. The bottom of the bag is protected by metal studs. Nylon web handles extend around bag for extra support. Wide opening steel frame is securely riveted in top of bag. Extra flap for storm protection.



Cat. No.	Length	Width	Depth
5180	24" (61 cm)	10" (25 cm)	18" (46 cm)

Rainwear bag

Rubberized waterproof fabric bag protects rainwear when not in use. Two snap buttons on the flap and belt loops on the back. Brass grommets in bottom provide drainage.



Cat. No.	Length	Width	Depth
5128	8 1/2" (22 cm)	4 1/2" (11 cm)	12" (30 cm)

Ladder bag

This roomy utility bag is made of olive drab tightly woven flame-retardant fabric. Snap buttons on flaps fasten around steel frame which hooks on ladder step or messenger strand.



Cat. No.	Size
5114	12"x6"x8" (30x15x20 cm)

Small Parts Bags

Klein offers a variety of small parts bags to suit your individual preference for on-the-job storage of miscellaneous tools, fasteners and other equipment.



Tapered bottom bag

Two pockets are provided for small parts. The bottom is tapered so parts will stay in center. The bag is made of No. 10 water repellent canvas and is equipped with a snap for hanging.

Cat. No.	Diameter	Depth
5143	6 1/2" (17 cm)	8" (20 cm)



Water repellent canvas pouch

Made of one piece tan 12 oz. water repellent canvas with 1/4" (6 mm) rope sewed in top. Top is 7" (18 cm) diameter, 9" (23 cm) deep. Rectangular bottom is 7 1/2"x3 1/2" (19x9 cm).

Cat. No.	Description
5179	With belt loops as shown.
5179S	With snap instead of belt loops.



White canvas zipper bag

Sturdy white canvas bag with strong zipper. Convenient storage for pliers, wrenches and other tools.

Cat. No.	Size
5139	7"x12" (18x30 cm)



Four compartment drawstring bag

Here is a 12 oz. olive drab fabric bag with four divided compartments to hold small parts. Drawstring provides easy closure.

Cat. No.	Diameter	Depth
5147	11" (28 cm)	3" (8 cm)



Ten compartment drawstring bag

Similar to 5147, above, but has 10 compartments. Drawstring for easy closing.

Cat. No.	Diameter	Depth
5151	11" (28 cm)	6" (15 cm)



All-purpose leather bag

Durable, lightweight leather bag is ideal for carrying loose tools and small parts. Large loops for attaching to belt.

Cat. No.	Size
5146	9"x3"x8" (23x8x20 cm)



TOOL BAGS/CANVAS BUCKETS

Small Parts Bags CONT'D



Strap leather pouch

This roomy pouch is made of strap leather with soft, pliable leather gussets which allow expansion to 3¼" (83 mm). Attaches to belt with latigo thongs.

Cat. No.	Size
5140K	7"x9" (18x23 cm)



Canvas utility bag

Made of No. 8 heavy brown canvas with ¼" (6 mm) rope ring in top. Snaps provided on loops for easy attachment to belt. Ventilating eyelet in bottom.

Cat. No.	Overall Size	Top Opening Size
5142	9"x10" (23x25 cm)	8"x3" (20x8 cm)

5142P Same as above but with inside pocket.



Canvas bolt bag with tool loops

This bag, made of No. 8 canvas, has tapered bull pin loop on each side, double bottom and 3" (76 mm) belt loops.

Cat. No.	Size
5416	5"x9"x10" deep (13x23x25 cm)
5416L	Same as above except made of chrome leather.

Non-Metallic Canvas Buckets



5106 5109 5113

Standard canvas buckets

All of these durable, popular priced buckets are made of No. 6 canvas. All have Cycloc top rings and molded rubber compound bottoms. Polypropylene rope handle is reinforced with leather where it is spliced around top ring.

Cat. No.	Top Diameter	Bottom Diameter	Height
5106	9" (23 cm)	9" (23 cm)	14" (36 cm)
5106P	Same as 5106 but with two 7"x7" (18x18 cm) inside pockets.		
5106S	Same as 5106 but with No. 2012 swivel snap.		
5109	12" (30 cm)	12" (30 cm)	15" (38 cm)
5109P	Same as 5109 but with 8"x8" (20x20 cm) inside pocket.		
5109S	Same as 5109 but with No. 2012 swivel snap.		
5109PS	Same as 5109P but equipped with No. 2012 swivel snap.		
5113	12" (30 cm)	9" (23 cm)	13" (33 cm)
5113S	Same as 5113 but equipped with No. 2012 swivel snap.		

Oval canvas bucket with pockets



An oval bucket with 15 pockets inside. Made of No. 6 canvas. Tripod suspension prevents bucket from tipping. No. 2012 swivel snap for hanging over cross arm hooks or attaching to hand lines.

Cat. No.	Length	Width	Height
5144S	14" (36 cm)	8" (20 cm)	10" (25 cm)

Important note: All Klein buckets may be ordered made of orange vinyl coated nylon. Specify VC after the catalog number.

Leather bottom bucket



This Klein bucket is more widely used by public utilities than any other. Made of No. 1 canvas with Cycloc top ring. Bottom is reinforced leather extending 3" (76 mm) up the sides. Inside pocket 8"x8" (20x20 cm). Polypropylene rope handle is reinforced with leather where it is spliced around top ring.

Cat. No.	Top Diameter	Bottom Diameter	Height
5104	12" (30 cm)	12" (30 cm)	17" (43 cm)
5104S	Same as above but equipped with No. 2012 swivel snap.		

Heavy-duty canvas bucket



Here is a bucket made of heavy No. 1 canvas with a Cycloc top ring and molded rubber compound bottom. Polypropylene rope handle spliced around top ring. Comes with No. 2012 swivel snap.

Cat. No.	Top Diameter	Bottom Diameter	Height
5103S	12" (30 cm)	9" (23 cm)	12" (30 cm)



Swivel snap hook

Cast zinc swivel snap made especially for use on hoisting buckets. **Important note: this snap is not to be used on safety lines.** Any bucket or line hose bag may be equipped with No. 2012 snap by adding letter S after the Klein catalog number. Maximum safeload 150 lbs.

Cat. No.	Overall Length	Eye I.D.	Throat Opening
2012	5" (127 mm)	¾" (19 mm)	12" (16 mm)



Glove & Sleeve Bags

All Klein glove bags and combination glove and sleeve bags are equipped with brass grommets in the bottom for ventilation. Safety notice on each bag reminds worker of the importance of using his gloves. Pockets for glasses or goggles are available. To order, add "G" after the catalog number and specify preferred location.

These bags are also available made of orange vinyl-coated nylon on special order. Add "VC" after catalog number.



Glove bags

Made of hard woven belting duck. Has an expansion gusset, 5½" (140 mm) across the top and 2¾" (70 mm) at bottom. Supplied with two-way snap.

Cat. No.	Length	Width
5121-15	15" (38 cm)	8" (20 cm)
5121-19	19" (48 cm)	8" (20 cm)

Same as 5121 glove bag except gusset is 2¾" (70 mm) at both top and bottom.

Cat. No.	Length	Width
5123-15	15" (38 cm)	8" (20 cm)
5123-19	19" (48 cm)	8" (20 cm)

Made of durable No. 8 canvas and equipped with two-way snap on the back. 5124-12 has 2¾" (70 mm) gusset. Other numbers in this series have expansion gusset, 5½" (140 mm) on top and 2¾" (70 mm) at bottom.

Cat. No.	Length	Width
5124-12	12" (30 cm)	8" (20 cm)
5124-15	15" (38 cm)	8" (20 cm)
5124-17	17" (43 cm)	8" (20 cm)
5124-19	19" (48 cm)	8" (20 cm)

Combination glove and sleeve bags

Provides separate storage for gloves and sleeves. Panels are heavy No. 4 canvas; gussets No. 10 canvas. Supplied with two-way snap. Width 8" (20 cm).

Cat. No.	Glove Length
5122-14	14" (36 cm)
5122-16	16" (41 cm)
5122-18	18" (46 cm)



Sleeve Roll & Bags



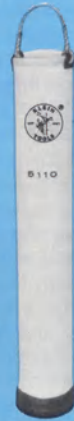
Sleeve roll

Made of waterproof canvas. Insertion of reed prevents sharp creasing. Will accommodate any length sleeve.

Cat. No.	Length
5173-31	31" (79 cm)

Line hose bag

This line hose bag is large enough to accommodate several pieces of hose and may also be used to raise protective rubber blankets that are rolled. Made of No. 6 canvas with Cyclocac top ring and molded rubber compound bottom. Leather cuff extends 3" (76 mm) up the side. Handle of ½" (13 mm) polypropylene rope is reinforced with leather where it is spliced around top ring. Standard height 48" (1.2 m) with other lengths available on special order at additional cost.



Cat. No.	Length	Diameter
5110-48	48" (1.2 m)	7" (18 cm)

Fire retardant mineral wool bag

NEW



Mineral-wool filled, fire-resistant fabric bags are designed to provide protection against the spread of heat and smoke. These economical, reusable bags are used extensively in telephone and computer cable systems, air conditioning ductwork and similar areas where conduits, pipes, cable and wires extend through floors, walls and ceilings, creating air spaces through which fire and smoke may travel. Also used to provide temporary fire barriers on construction sites and as rodent-proof barriers in buried cable systems.

Flexible bags will fit any configuration, are simply stuffed tightly into gaps to provide an effective barrier against fire and smoke as well as burrowing animals.

Cat. No.	Nominal Overall Size
41115	12"x12"x1" (30x30x3 cm)

Clamps & Hooks



Blanket clamps

Formed from durable Cyclocac, these clamps are exceptionally strong to withstand rugged use. Unaffected by low temperature; will not splinter or absorb water. Heavy spring gives a vise-like grip. Edges of jaws rounded to prevent damage to blankets. Two sizes.

Cat. No.	Length
5117-L	12" (30 cm)
5117-M	8" (20 cm)



Crossarm hook

Made of ⅝" (8 mm) steel rod, heavily insulated. Opening is 4½" (11 cm). Length is 10" (25 cm).

Cat. No.
2101V

Order from your local distributor.

To better serve our customers, Klein Tools, Inc. has developed extensive national distribution through distributors. These distributors maintain a large stock of Klein tools and equipment in your own area and can fill your order rapidly. For the occasional item not in stock, our distributors receive prompt delivery from the factory. Order through your local distributor.



SAFETY EQUIPMENT

Introduction

Our complete line of body belts, harnesses, safety straps and lanyards meets all current federal regulations on fall protection for general industry, construction and utilities.

Enactment in the U.S. of the Occupational Safety and Health Act of 1970 (OSHA) has given a new force to an already extremely important aspect of on-the-job safety. Now, not only linemen, tree-trimmers and other workers who must routinely work at elevated job sites, but *all employees who might sustain an injurious fall from an elevated location must be protected from falling by appropriate safety equipment.* This regulation includes locations such as towers, poles, aerial lifts, catwalks and all other elevated sites not adequately protected by enclosures, guardrails or nets.

The new federal standards cover all employees in general industry, construction and utilities.

Remember, Klein fall-protection equipment meets or exceeds all current regulations. As required by OSHA, every piece of Klein safety equipment bears a permanent tag inscribed with our name, the date of manufacture, model and serial numbers.



Klein premium materials mean unsurpassed fall-protection performance.

In 1934 Klein Tools originated the first fabric safety belt material. Since then we have maintained our leadership in material development through the introduction of the use of nylon and its successive improvements.

Materials and their uses.

Leather. Klein uses chrome tanned leather as belt lining material. This leather is very soft for maximum wearer comfort and highly resistant to sweat and other moisture. Despite use in the most inclement weather, Klein leather-padded belts retain their pliability and softness. Harness leather is used for tool loops to provide maximum strength and durability. Klein uses no leather in its safety belts as the load-bearing material.

Nylon. Klein uses MIL spec (MIL-W-4088) nylon, Types X, XIII, XIX and XX to manufacture fall-protection equipment designed to meet specific user needs.

Woven nylon web is used in many of our industrial safety belts. Typically, it is latex or resin impregnated for added durability and leather- or fabric-backed to lend desirable body and comfort.

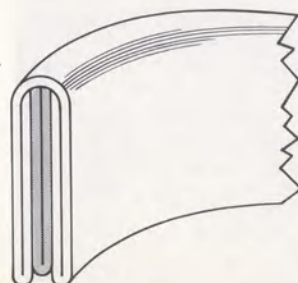
Filament nylon, for example, is used extensively by Klein in the manufacture of rope lanyards, where its long strands impart very high tensile strength and excellent elasticity. Spun nylon, on the other hand, is more flexible because of its relatively short fibers. Because it has the "feel" of Manila rope, many users judge it to be easier to handle and tie.

Special fibers. Polypropylene and dacron impart desired properties to rope lanyards for special-purpose uses. Polypropylene is strong and has exceptional dielectric characteristics, and is therefore excellent for use around high voltage. Dacron is similar to nylon, but more acid resistant and is ideal for use in chemical environments.

Klein-Kord. This latest refinement in Klein's 45-year development effort, is a multiple-ply, neoprene-impregnated nylon. The finely-woven filament nylon is pre-dipped and vulcanized. Klein-Kord finds its primary use as the load-bearing material in construction of lineman's body belts and straps. It is virtually unaffected by even the harshest in-use environment. Creosote and other pole-treatment chemicals, for example, have little affect on its strength or durability.

Klein-Kord's chemical resistance, coupled with its superior strength and abrasion-resistance, make it an ideal material for fall-protection equipment. It is non-conductive, free from stretch, and has the flexibility that is absent in many fabric belts to insure maximum comfort.

Illustrated below is our popular six-ply, 1-3/4" wide (44 mm) Klein-Kord. Its tensile strength is in excess of 8000 lbs (3600 kg), exceeding all government and industry requirements. The center plies of red-colored Klein-Kord at the core of this belt material are your notice that the belt should be removed from use immediately and replaced. This "early warning" feature is yet another measure of safety developed by Klein Tools. *Note: the red center plies may become discolored in use. Consequently, visual inspection for wear before each use is mandatory.*



Six-ply Klein-Kord with red center plies.

—Cautions—

1. **Use personnel safety equipment for employee safeguarding only.** Should any safety belt, harness, lanyard or strap be subjected to actual loading or impact forces, as may develop in arresting a fall, it shall be removed from service except for display and education.
2. **Lanyards and straps should be kept as short as possible.** Eliminating unnecessary slack minimizes the possibility and potential severity of a free fall. Care should be used to see that the lanyard or strap is attached to a firm anchorage by means which will develop its full strength. A knot will reduce the strength of a rope lanyard by at least 50%.
3. **Permanently attach the lanyard to rope loop or D ring.** Klein safety belts with a rope loop shall (mandatory) have the lanyard or securing line permanently attached to the rope loop. Klein belts or harnesses with one D ring should (advisory) have the lanyard permanently attached to the D ring to minimize the possibility of accidental disengagement of the lanyard from the D ring. If usage prohibits permanent attachment of the lanyard to the D ring, a lanyard with a snap hook may be used. Snap hooks with locking devices are recommended.
4. **Do not rely on the feel or sound of snap hook engaging.** Always check visually for proper engagement of the snap hook.
5. **Never attach foreign objects to D rings.** Do not use the D rings for anything other than engaging a strap or lanyard. Foreign objects attached to D rings may prevent proper engagement of the snap hooks or give the wearer a false indication of snap hook engagement.
6. **Do not punch or cut extra holes in a belt or harness.** If the item does not fit properly replace it with one of the correct size. Never attempt to make a lanyard or strap longer by tying two lines together or by joining two lines by attaching snap hooks together. Obtain the proper length for the job.

—Inspection Procedure—

1. **Check fabric for wear and deterioration.** Prior to each use carefully inspect the belt or harness and associated lanyard or strap for indications of wear or deterioration. Visually inspect for loose threads, pulled rivets, cuts, abrasions, or evidence of chemical or physical deterioration that may have weakened the material or assembly.
2. **Inspect hardware for malfunctions and cracks,** including all snaps, buckles and D rings.
3. **Replace all defective items.** If evidence of excess wear, deterioration or mechanical malfunction is observed, it is mandatory that the safety item be replaced.



American National Standards Institute

(ANSI) Requirements* for
Safety Belts, Harnesses and
Lanyards† for Construction and
Industrial Use.

Occupational Safety and Health Administration

(OSHA) Requirements* for
Climbing Equipment
for Power Utility,
Telecommunications and
Industrial Use.

Scope

This standard, A10.14-1975, establishes performance criteria for the construction and use of safety belts, harnesses, lanyards, lifelines and droplines. It does not cover linemen's body belts and safety straps.

These specifications apply to linemen's body belts, safety straps and lanyards used by workers in the power utility (OSHA Part 1926, Section 1926.104 and Subpart V, Section 1926.959) and telecommunications (OSHA Part 1910, Subpart R, Section 1910.268 (g) industries.

Materials & Construction

Belts may be made of any material, except leather, that will result in a finished belt capable of meeting the performance standards (see *Qualification Tests*, below). Belts must be a minimum of 1-3/4" nominal width.

Lanyards may be of any fibrous or metallic material satisfactory for the application and which results in a finished lanyard capable of meeting the performance standards. Lanyards must be kept as short as possible to minimize the possibility and length of a free fall but no set limit on length is specified.

D rings and snap hooks must be of drop-forged steel with a corrosion-resistant finish, able to withstand a 5000 lb (2300 kg) tensile test without failure.

Buckles must also be of corrosion-resistant drop-forged steel, able to withstand a tensile test of 4000 lb (1815 kg) without failure.

Body belts, safety straps and lanyards may be made of materials which result in a finished product that meets or exceeds all requirements (see *Qualification Tests*, below). Safety belt lanyard shall be a minimum of 1/2-inch nylon, or equivalent, with a maximum length to provide for a fall of no greater than 6 feet. The rope shall have a *nominal* breaking strength of 5400 pounds.

D rings and snap hooks must be of drop-forged steel with a corrosion-resistant coating, able to withstand a tensile test without failure: Industrial 4000 lbs., Linemen's 5000 lbs. Surface shall be smooth with no sharp edges.

Buckles must also be corrosion-resistant. Buckle frames must be fabricated of a forging quality steel by the forge process, able to withstand a tensile test with maximum permanent deformation of 1/64": Industrial 4000 lbs., Linemen's 2000 lbs.

Qualification Tests

Samples of all *industrial safety belts, harnesses and lanyards* must withstand without failure a test consisting of three successive drops of a 250 lb (113 kg) rigid weight falling free through a distance of 6 feet (1.8 m). The weight must be a rigid cylindrical or torso-shaped object. The belt or harness must be applied to the weight as it would be to a man. Failure consists of any breakage or slippage sufficient to permit the weight to fall.

Note: Belts, harnesses and lanyards that have been subjected to drop tests shall not be used except for display and education.

The testing of lineman's body belts, safety straps and lanyards shall be in accordance with the following procedure:

- Attach one end of the safety strap or lanyard to a rigid support and the other to a 250 lb canvas bag of sand.
- Allow the 250 lb canvas bag to free fall 4 feet for the safety strap test and 6 feet for the lanyard test, in each case stopping the fall of the bag.
- Failure of the body belt, strap or lanyard shall be indicated by any breakage or sufficient slippage to permit the bag to fall free of the strap or lanyard.

The entire assembly shall be tested using one D ring.

All *fabric and leather* used shall be tested for leakage current. The leakage current shall not exceed one milliamperes when a potential of 3000 volts ac is applied to the electrodes positioned 12 inches apart.

All fabric used for safety straps shall withstand an ac dielectric test of not less than 25,000 volts per foot "dry" for three minutes, without visible deterioration.

Certifications and Inspections

Manufacturers' certification. Each belt and lanyard assembly shall bear permanent identification marks which identify the manufacturer, bear the date of manufacture and the number of the standard. The number of this standard constitutes a certificate that the minimum requirements have been met.

Users' inspections. Each belt and lanyard assembly must be visually inspected for defects prior to each use. The assembly must be further inspected according to the manufacturer's recommendations not less often than twice annually, with the date of each such inspection being recorded on an inspection tag that shall be permanently attached to the belt.

The employer shall insure that all safety belts and straps are inspected by a competent person prior to each day's use to determine that they are in safe working condition.

IMPORTANT NOTE: OSHA specifies that all employers covered by the Occupational Safety and Health Act of 1970 are responsible for inspection and maintenance of all tools and equipment used by employees—whether owned by the employee or by the company. *Personal safety equipment should be inspected before each use and removed from service if signs of wear or damage are found.*

*Standards are presented here for informational purposes only. Nothing in this table should be construed as a definition or limitation of legal responsibility as specified by the Occupational Safety and Health Act of 1970 or any other applicable local, state or federal laws and regulations.

†SAFETY BELTS, LANYARDS AND DROP LINES are covered in OSHA Part 1926.104. This paragraph spells out the minimum requirements of life lines, lanyards for safety belts, and safety belts and lanyard hardware. No reference is made to safety belt or harness construction, materials used in them, nor the testing of them as a completed unit as of the date of this catalog.



SAFETY BELTS

Introduction CONT'D

Occupational waist belts

A guide to the selection of your fall-protection equipment.

Body belts, harnesses, safety straps and lanyards are classified according to their intended use by ANSI.

Class I: Body belts, used to restrain a person in a hazardous work position and to reduce the probability of falls. When subjected to a fall, body belts together with their associated lanyards shall produce a stopping force of not more than 10-times gravity.

Class II: Chest harnesses, used where there are only limited fall hazards (no vertical free fall hazard) and for retrieval purposes, such as removal of a person from a tank or bin. Class II harnesses shall not be used for stopping falls and are not subject to impact requirements.

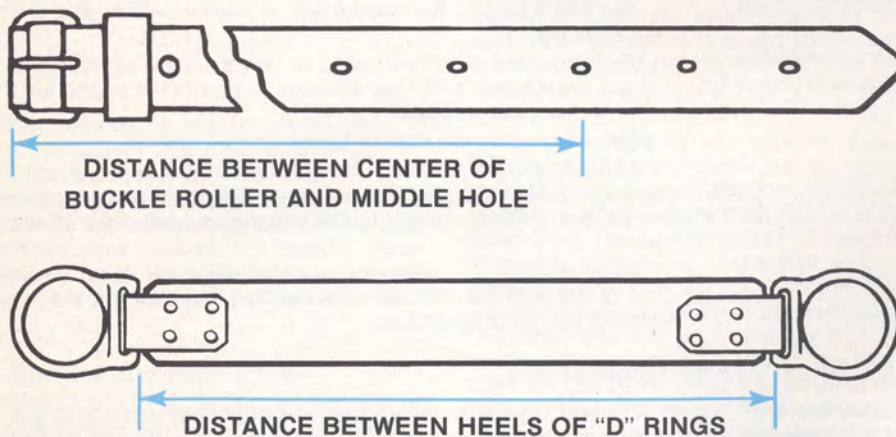
Class III: Body harnesses, used to arrest the most severe free falls. When subjected to a fall, body harnesses together with their associated lanyards shall produce a stopping force of not more than 35-times gravity.

Class IV: Suspension belts—typified by the Klein Bosun's chair—are independent work supports used to suspend or support the worker and, like Class II Chest Harnesses, shall not be used for stopping falls and are not subject to impact requirements or limitations.

It is extremely important to note that all lanyards should be kept as short as possible to minimize both the possibility and the force of a free fall. A person in free fall accelerates very rapidly with the effect that a fall of six feet, for example, is much more than twice as severe as a fall of only three feet. Whatever the length of the lanyard you purchase, in use it should be tied off as short as possible. Care should be taken to attach the lanyard to a fixed anchorage by means that will not reduce its strength. A knot will reduce the strength of a rope lanyard, for example, by at least 50%.

Obtaining a safety belt with the best fit possible is very important to wearer comfort and safety. The table below will help you in ordering belts of the correct size. To order follow this procedure:

1. Obtain measurement where the belt will actually be worn (generally close to hip level).
2. For belt styles without D rings or with 1 D ring, use "Belt Size" dimensions in the accompanying table and order Small (Cat. No. suffix "S"), Standard (no suffix required), Large (suffix "L"), or Extra Large (suffix "XL").



Occupational Waist Belt Sizes

Ordering Code	Belt Size	D Ring Size
Small	32" to 40"	20"
	(81-102 cm)	(51 cm)
Standard	36" to 44"	22"
	(91-112 cm)	(56 cm)
Large	40" to 48"	24"
	(102-122 cm)	(61 cm)
Extra Large	44" to 52"	26"
	(112-132 cm)	(66 cm)

Belt Size dimensions in the accompanying chart reflect measurements between the center of the buckle roller and the middle hole of the belt. For belts equipped with two D rings, the D Ring Size is measured from heel of D ring to heel of D ring.

Important Note: Unless otherwise specified, standard size belt(s) will be shipped. There is an additional charge for the extra large size belts.

Two-Ply Nylon Belts With Single-Tongue Buckles—ANSI Class I

These durable 2-ply belts are made from Type XIII orange nylon. They are equipped with drop-forged tongue buckles and brass grommets. Width 1½" (44 mm). Color is safety orange.



Cat. No. 5480 **Description** Standard belt without D rings.



Cat. No. 5480-1D **Description** Same as above but with one drop-forged D ring.



Cat. No. 5480-2D **Description** Same as 5480 but with two drop-forged D rings.



Cat. No. 5480-3D **Description** Same as 5480 but with three drop-forged D rings.

Safety Note:

Never use the D ring on a safety belt or harness for anything other than engaging a strap or lanyard. Foreign objects attached to the D ring may prevent proper engagement of the snap hook.



Two-Ply Nylon Belts With Single-Tongue Buckles CONT'D



Modular safety belt

Klein's modular design allows this belt assembly to be used as a tool belt or as a safety belt. By combining the features of both it makes the wearing of two belts unnecessary.

The complete assembly consists of a belt, Cat. No. 5480, body pad with two D rings and a 10' (3 m) adjustable lanyard. The belt may be used as a tool belt without the pad and as a safety belt with pad and D rings.

The body pad is chrome elk-tanned leather padded with sponge rubber. A nylon saddle holds two drop-forged D rings. The lanyard is equipped with a friction buckle and two drop-forged snap hooks.

Cat. No.	Description
5481	Assembly includes belt, pad and lanyard.



Cat. No.	Description
5480NCP	Pad with two D rings.
5492W-10	10' (3 m) adjustable lanyard.

Safety Note:

Safety belts, harnesses, lanyards and straps should be used *only* for personnel protection, never to hoist or suspend other loads.

Leather-Lined Single-Ply Nylon Belts/ Single-Tongue—ANSI Class I

These belts are made of 1 3/4" wide (44 mm) Type XIX orange nylon. Lined with chrome tanned leather. Drop-forged single-tongue buckle and brass grommets.



Cat. No.	Description
5440	Standard belt without rope or D rings. Equipped with rope loop.



Cat. No.	Description
5440R	Same as above but furnished with 12' (3.7 m) of 1/2" (13 mm) filament nylon rope spliced into rope loop. Free end equipped with Cat. No. 468-5 snap hook.



Cat. No.	Description
5441	Same as 5440 but equipped with drop-forged circle D ring attached to left side of belt.



Cat. No.	Description
5442	Same as 5440 but equipped with two drop-forged circle D rings—one on each side.



Cat. No.	Description
5443	Same as 5440 but equipped with three drop-forged circle D rings.



Cat. No.	Description
5411	Same basic belt as 5440, but with a removable 3" wide (76 mm) mildew-resistant cotton back pad. Also features a No. 457-5 drop-forged safety hook attached to the single D ring. Hook throat opening is 1 1/2" (38 mm).



Safe guard belt

This 5440 type belt comes equipped with a pouch and lanyard, designed as a unit. Lanyard tucks into pouch out of the way when not in use. Pouch is attached to belt by loops and may be placed in any desired position. This water repellent canvas pouch has 1/4" (6 mm) rope sewn in top for added rigidity and a Dot fastener for closing. Pouch size 10"x11" (25x28 cm). The 1" wide, 5' long (25 mm x 1.5 m) nylon web lanyard has belt loop at one end and drop-forged snap, Cat. No. 468-5, at the other.

Cat. No.	Description
5439	Assembly includes belt, lanyard and pouch.
5439B	Chrome leather lined nylon belt only.
5439W-5	1" wide (25 mm) nylon lanyard, 5' long (1.5 m).
5439P	Water repellent canvas bag, 10"x11" (25x28 cm).



SAFETY BELTS

Single-Ply Nylon Belts with Friction Buckles or Leather Billet & Forked Tongue Buckles—ANSI Class I

These lightweight, economical belts are made of 1¼" wide (44 mm) Type XIII orange nylon webbing. Equipped with Klein's exclusive double-pass friction buckles for added strength and safety. Belts equipped with D rings have leather liner and metal roller around D ring bar to prevent excessive wear.

Any of these belts may also be ordered with a wrap-around leather billet and drop-forged forked tongue buckle by adding suffix LB to catalog number.



5444



5444LB



5446



5446LB

Fixed D rings

Cat. No.	Description
5444	Equipped with drop-forged circle D ring and friction buckle.
5444LB	Same as 5444 but has forked tongue buckle and wrap-around leather billet.
5446	Equipped with 2 drop-forged circle D rings and friction buckle.
5446LB	Same as 5446 but has forked tongue buckle and wrap-around leather billet.

Made of lightweight flexible nylon webbing, 1¼" wide (44 mm), these belts feature drop-forged circle D rings that are inserted behind waist webbing and held in place by a slide pad that permits comfortable adjustment to any position.



5475



5475LB



5475-2D



5475LB-2D

Adjustable D rings

Cat. No.	Description
5475	Equipped with one adjustable circle D ring and friction buckle.
5475LB	Same as 5475 but has forked tongue buckle and wrap-around leather billet.
5475-2D	Same as 5475 but equipped with two adjustable drop-forged circle D rings and friction buckle.
5475LB-2D	Same as 5475-2D but has forked tongue buckle and wrap-around leather billet.

Order from your local distributor.

Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.

Padded Safety Belts—ANSI Class I

Made of 1¼" wide (44 mm) Type XIII orange nylon webbing, these belts come with a 3" wide (76 mm), mildew-resistant, cotton web pad permanently stitched to the nylon belt. Padded liner overlaps at buckle for added comfort.



5447



5447LB



5447-1D

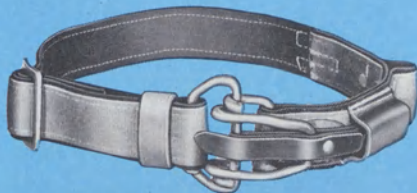


5447LB-1D

Cat. No.	Description
5447	Equipped with two drop-forged circle D rings and friction buckle.
5447LB	Same as 5447 but has drop-forged forked tongue buckle and wrap-around leather billet.
5447-1D	Same as 5447 but equipped with one drop-forged circle D ring and friction buckle.
5447LB-1D	Same as 5447-1D but has drop-forged forked tongue buckle and wrap-around leather billet.

Quick Release Belts—ANSI Class I

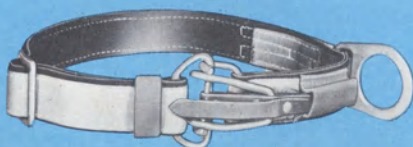
Klein Quick Release Belts are designed for use in situations where safety may depend, in part, on being able to quickly disengage the safety belt. For example, in bridge construction. Our Quick Release Belts are made of 1¾" wide (44 mm) Type XIII orange nylon webbing. The Klein Quick Release buckle disengages instantly in an emergency, yet is designed to prevent accidental opening.



Cat. No. 5465
Description
 2" wide (51 mm) mildew-resistant cotton web pad sewn to nylon belt. Has loop to which a rope lanyard may be spliced.



Cat. No. 5465R
Description
 Same as 5465 but, furnished with 12' (3.7 m) of ½" (13 mm) nylon rope spliced to rope loop.



Cat. No. 5466
Description
 Same as 5465 but equipped with drop-forged circle D ring on left side instead of rope loop.



Cat. No. 5467
Description
 Same as 5465 but equipped with two drop-forged circle D rings, one per side.



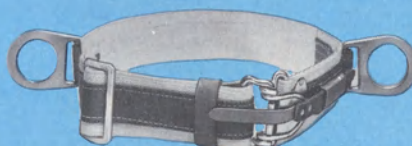
Cat. No. 5462
Description
 Same as 5465 but has 3" wide (76 mm) mildew-resistant cotton pad stitched to the nylon belt for added comfort. Has loop for splicing on a rope lanyard.



Cat. No. 5462R
Description
 Same as 5462 but has 12' (3.7 m) of ½" (13 mm) nylon rope spliced to rope loop.

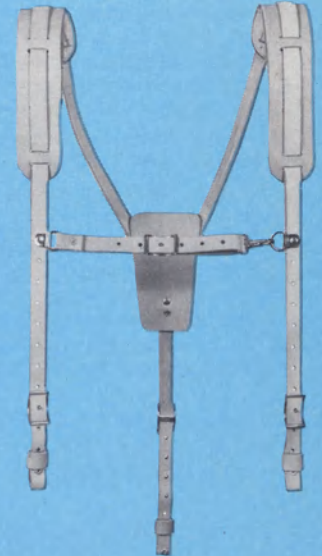


Cat. No. 5463
Description
 Same as 5462 but has drop-forged circle D ring on left hand side instead of rope loop.



Cat. No. 5464
Description
 Same as 5462 but has 2 drop-forged circle D rings, one per side.

Occupational Belt Accessories



Belt suspenders

Not a safety harness, should not be used for safety support.

Soft chrome leather suspenders have adjustable loops at the end of all three straps to permit use on any width Klein safety belt. Fully adjustable front and back for comfortable fit.

Cat. No. 5413



Extra-wide, comfortable belt pad

Klein's 4" wide (10 cm) mildew-resistant cotton pad snaps easily onto any belt up to 2" wide (51 mm). Available in two sizes. Recommended for maximum comfort.

Cat. No.	Length
5445	30" (76 cm), recommended for medium-size and larger belts.
5445S	22" (56 cm), recommended for small-size belts.



LANYARDS FOR OCCUPATIONAL SAFETY BELTS

Introduction

Klein Tools, Inc. provides both rope and nylon webbing lanyards that meet or exceed all current OSHA regulations. Lanyards are supplied in standard lengths of 5', 6', and 10' (1.5, 1.8, and 3.0 m), but lanyards of any length can be supplied on special order. When ordering be sure to state overall length desired.

Important note: In use, lanyards should be tied off as short as possible to minimize the possibility and severity of a free fall.

On special order, Klein can also provide rope lanyards spliced to rope loops or D rings on any of our occupational waist belts.

All lanyards may also be supplied with our exclusive Klein-Lok Safety Snap. This snap is designed to prevent accidental opening and roll-out. It has two latches which must be actuated simultaneously. The double-latch mechanism is designed for one hand operation. To order lanyards equipped with this safety feature, place KL before the catalog number; 6' (1.8 m) available from stock.

5/8" (16 mm) and 3/4" (19 mm) filament nylon, 1/2" (13 mm) dacron and 3/4" (19 mm) Manila rope lanyards and drop-lines are available on special order.

Rope Elongation Information

The first time a rope is loaded, it generally undergoes some permanent change in length. This change is called PERMANENT ELONGATION.

Upon repeated application of the same load, most ropes elongate and recover elasticity with no further permanent elongation. This property is called WORKING ELASTICITY.

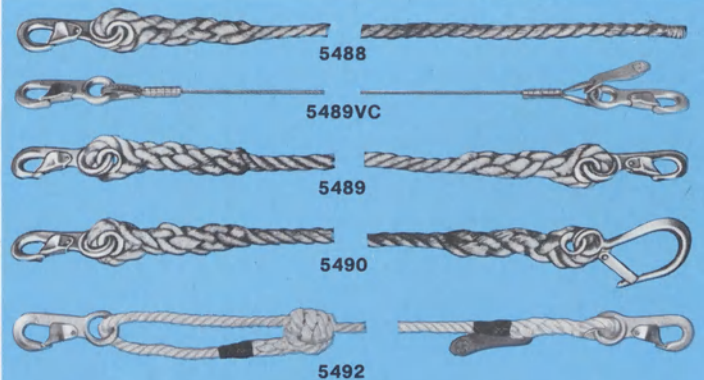
The following table gives typical values for various ropes subjected to normal working loads.

Rope	Diameter— inches (mm)	Average Breaking Strength— lbs (kg)	Load = % of breaking strength—standard lay			
			20%	30%	20%	30%
			Permanent Elongation		Working Elasticity	
Nylon (Filament)	1/2 (13)	6400 (2880)	4.0	7.0	22.0	24.0
Nylon (Filament)	5/8 (16)	10,400 (4680)	4.0	7.0	22.0	24.0
Nylon (Filament)	3/4 (19)	14,200 (6390)	4.0	7.0	22.0	24.0
Nylon (Spun)	5/8 (14)	5900 (2655)	4.0	7.0	22.0	24.0
Poly- propylene	1/2 (13)	5600 (2520)	2.5	3.0	12.0	13.0
Aircraft Cable	7/32 (6)	5600 (2520)	Preformed		Practically None	
Dacron	1/2 (13)	6400 (2880)	.5	.5	9.0	9.0
Manila	3/4 (19)	5400 (2430)	—		—	

Safety Note:

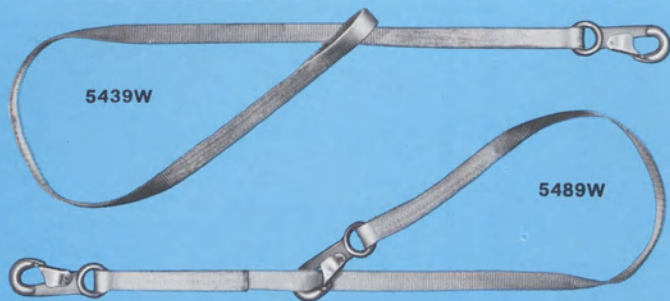
Never attempt to make a lanyard or strap longer by tying lines together or by joining lines by attaching snap hooks together. Obtain the right length strap or lanyard for the job.

Rope Lanyards



Cat. No.	Length	Description
5488N-5	5' (1.5 m)	5/8" (14 mm) spun nylon rope. No. 468-5 snap on one end; other end whipped.
5488N-6	6' (1.8 m)	Same as above.
KL5488N-6	6' (1.8 m)	Same as above but equipped with Klein-Lok snap on one end; other end whipped.
5489C-5	5' (1.5 m)	7/32" (6 mm) aircraft cable rope. No. 468-5 snap on each end.
5489C-6	6' (1.8 m)	Same as 5489C-5.
KL5489C-6	6' (1.8 m)	Same as 5489C-6 but equipped with Klein-Lok snap on each end.
5489VC-6	6' (1.8 m)	Vinyl-coated 7/32" (6 mm) aircraft cable. No. 468-5 snap on each end.
NEW KL5489VC-6	6' (1.8 m)	Same as 5489VC-6 but equipped with Klein-Lok snap on each end.
5489N-5	5' (1.5 m)	1/2" (13 mm) nylon filament rope with No. 468-5 snap on each end.
5489N-6	6' (1.8 m)	Same as 5489N-5.
KL5489N-6	6' (1.8 m)	Same as 5489N-6 but equipped with Klein-Lok snap on each end.
5489P-5	5' (1.5 m)	1/2" (13 mm) safety orange polypropylene rope. No. 468-5 snap on each end.
5489P-6	6' (1.8 m)	Same as 5489P-5.
KL5489P-6	6' (1.8 m)	Same as 5489P-6 but equipped with Klein-Lok snap on each end.
5490N-5	5' (1.5 m)	1/2" (13 mm) nylon filament rope. Supplied with No. 468-5 snap on one end; No. 457-5 snap on the other.
5490N-6	6' (1.8 m)	Same as 5490N-5.
KL5490N-6	6' (1.8 m)	Same as 5490N-6 but equipped with Klein-Lok snap on one end; No. 457-5 snap on the other.
5492N-5	5' (1.5 m)	1/2" (13 mm) nylon filament rope. No. 468-5 snap on each end. Length is adjustable.
5492N-6	6' (1.8 m)	Same as 5492N-5.
KL5492N-6	6' (1.8 m)	Same as 5492N-6 but equipped with Klein-Lok snap on each end.

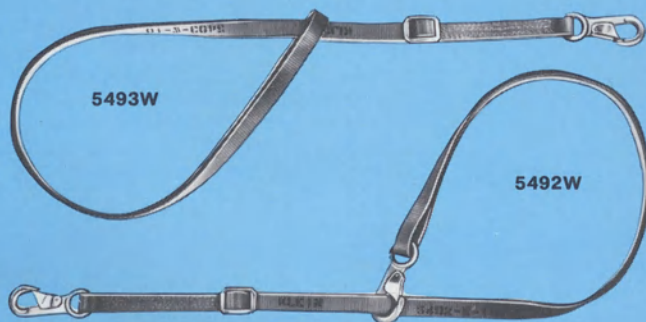
Nylon Webbing Lanyards



Fixed length lanyards

These Klein lanyards are made of 1" wide (25 mm), Type XX orange nylon webbing, resin impregnated for greater durability.

Cat. No.	Length	Description
5439W-5	5' (1.5 m)	Equipped with loop at one end to slip on 2" wide (51 mm) belt, other end has a No. 468-5 drop-forged snap hook.
5439W-6	6' (1.8 m)	Same as above.
KL5439W-6	6' (1.8 m)	Same as above but equipped with Klein-Lok snap on one end; other end has loop to slip on 2" wide (51 mm) belt.
5489W-5	5' (1.5 m)	Similar to 5439 but both ends equipped with No. 468-5 drop-forged snap hooks.
5489W-6	6' (1.8 m)	Same as above.
KL5489W-6	6' (1.8 m)	Same as above but both ends equipped with Klein-Lok snaps.



Adjustable length lanyards

Here are four 1" wide (25 mm) lanyards with lengths that are adjustable from 6½" to 10' (2 to 3 m).

Cat. No.	Description
5493W-10	Has drop-forged snap hook 468-5 on one end; loop to slip on a 2" wide (51 mm) belt on the other end.
KL5493W-10	Same as above but with Klein-Lok snap on one end; belt loop on the other end.
5492W-10	Same as above but both ends have drop-forged snap hook, Cat. No. 468-5.
KL5492W-10	Same as above but both ends have Klein-Lok snaps.

Rope Grab Shock Absorber



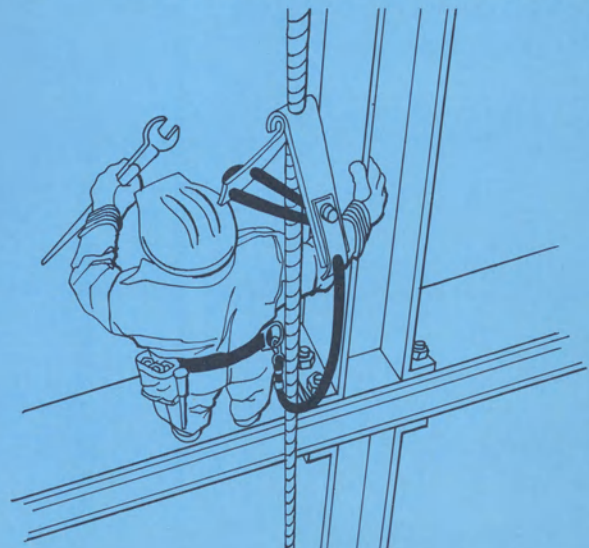
Provides increased protection for workers in situations where they are exposed to free fall hazards. Enables worker to secure his belt or harness to a vertical ¾" rope quickly and safely.

The Klein Rope Grab Shock Absorber positively but gradually applies the brake in the event of a fall, providing 600 lbs (270 kg) of stopping force. Falls are arrested with greatly reduced impact and rebound.

Fabricated from heavy-duty steel plates that are heat treated and nickel plated. 5' long (1.5 m) braided nylon line is securely attached to the rope grab at one end and has a drop-forged No. 468-5 snap at the other end.

Caution: Always position within easy reach but above head height. Always provide at least 30' (9.2 m) of drop-line below the rope grab. If workman is using the rope grab below 30' (9.2 m) level, always hang a 5 lb (2.3 kg) or more weight at the end of the drop line. The Klein Rope Grab Shock Absorber is for personnel use only and should never be used except in conjunction with the proper belts and harnesses, and when affixed to a vertical drop-line.

Cat. No.	Description
35095	Complete rope grab assembly without drop-line.





AERIAL BASKET EQUIPMENT

Aerial Basket Equipment

The development of aerial basket lifts, and the OSHA regulations pertaining to their safe use, have brought about the need for specially designed safety straps and assemblies for aerial basket work.

OSHA specifies in Part 1910.67 and Part 1926.556 (Aerial Lifts) that a body belt and lanyard must be worn when working from an aerial lift. One end of the lanyard must be attached to the workman's body belt; the other to the boom or the basket itself. It is not permitted under OSHA regulations to belt off to any adjacent pole, structure, or other equipment.

Klein offers two complete assemblies, which include body belt, lanyard and boom strap. The individual components of these assemblies may also be purchased separately.



5412N



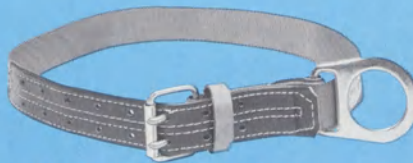
5216

Neoprene-impregnated nylon belts

These belts are made of 6-ply Klein-Kord, our unique, neoprene impregnated and vulcanized nylon material. Back cushion is 4" wide (10 cm), tapered on the sides. Waist belt is 1 3/4" wide (44 mm).

Cat. No.	Description
5412N	Equipped with fixed-position drop-forged circle D ring in back.
5216	Similar to above but has drop-forged circle D ring that is free-running across the back.

For additional selection of Klein waist belts and lanyards, see pages 60 through 65. Klein also provides a complete line of safety harnesses, see pages 67 and 68.



Lightweight nylon body belt

A lightweight flexible belt made of 1 3/4" wide (44 mm) orange nylon webbing. Drop-forged circle D ring has leather liner and metal roller around the bar to reduce wear of webbing. Equipped with drop-forged forked tongue buckle and wrap-around leather billet.

Cat. No. 5444LB



Lanyards 5489P-5

These lanyards are made of 1/2" (13 mm), safety orange polypropylene rope. Choose from either 5' (1.5 m) or 6' (1.8 m) lengths. The 6' lanyard comes with our Klein-Lok Snap which features a double-latch for added security against accidental disengagement.

Cat. No.	Length	Description
5489P-5	5' (1.5 m)	Equipped with No. 468-5 snap on each end.
KL5489P-6	6' (1.8 m)	Has Klein-Lok Safety Snap on each end.



Boom straps

Made of resin-treated Type X orange nylon fabric. Flexible to conform to various shaped booms. Adjustable friction buckle allows snug take up. Adjustable drop-forged circle D ring with pad to hold D ring in position.

Cat. No.	Length	Width
5217	54" (1.4 m)	1 3/4" (44 mm)
5217-2D	Same as above but equipped with 2 drop-forged circle D rings for two-man lifts.	

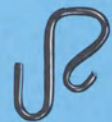


Tool bucket

Specially designed for attaching to aerial baskets. Made of heavy-duty No. 6 canvas with 15 pockets for tools: ABS hooks are impervious to temperature changes.

Cat. No.	Length	Width	Height
5144	14" (36 cm)	8" (20 cm)	10" (25 cm)

Hook for tool bucket



ABS hook for hanging bucket on edge of lift. Also provides a hanging hook for line hose bags, tool buckets and hand lines. Tough ABS plastic is impervious to temperature changes.

Cat. No. 5144H



Naugahyde tool carrier

Made of heavy, durable Naugahyde. Equipped with tool loops, tool holster, knife sheath and small parts bag. Hangs inside aerial basket to make tools readily available. Stiffening rod across top holds carrier straight.

Cat. No.	Height	Width
5169	21" (53 cm)	19" (48 cm)

Basket assemblies

Here are two complete assemblies of safety body belt, lanyard and boom strap. Both fulfill OSHA requirements for working from an aerial basket.

Cat. No.	Description
5220	Assembly consists of body belt 5444LB, lanyard 5489P-5 and boom strap 5217. All components are shown on this page.
5221	Assembly consists of safety body belt 5216, lanyard 5489P-5 and boom strap 5217. All components are shown on this page.

Introduction

The American National Standards Institute (ANSI) in A10.14-1975 classifies safety harnesses according to the type of service for which they are approved.

Class I includes body belts (work belts) used to restrain a person in a hazardous work position and to reduce the probability of falls. When subjected to a fall, these belts together with their associated lanyards shall produce a stopping force of not more than 10-times gravity.

Class II harnesses are chest harnesses, used where there are only limited fall hazards (no vertical free fall hazard) and for retrieval purposes, such as removal of a person from a tank or bin. They are not to be used for stopping falls and are not subject to impact requirements.

Class III harnesses are body harnesses, used to arrest the most severe free falls. When subjected to a fall, Class III harnesses together with their associated lanyards shall produce a stopping force of not more than 35-times gravity.

Class IV harnesses are suspension belts, independent work supports used to suspend or support the worker. Like Class II harnesses they shall not be used for stopping falls and are not subject to impact requirements.

To assist you in specifying the type of harness you require, Klein Tools has organized its safety harnesses in this catalog according to the four ANSI classifications.

For more complete information on ANSI and OSHA requirements, see pages 58 and 59.

Chest Harnesses—ANSI Class II



Adjustable Klein-Kord harness

Made of our exclusive Klein-Kord nylon. Chest strap is 1 3/4" wide (44 mm). Adjustable 36" to 44" (91 to 112 cm). Shoulder straps are 1" wide (25 mm) and are also adjustable. Rear support strap equipped with drop-forged circle D ring. 25' (7.6 m) of 1/2" (13 mm) nylon filament rope permanently spliced to D ring. Can also be supplied with 25' (7.6 m) of 3/4" (19 mm) Manila rope for special applications at additional cost.

Cat. No. 5409N



Retrieval harness

Ideal for use in quarries, tanks and other enclosed places where it may be necessary to lift a man out quickly. Made of 1 3/4" wide (44 mm) Type XIII orange nylon web with three drop-forged circle D rings. Waist D rings provide a means of obtaining additional stability and safety. Equipped with double-pass friction buckle.

Cat. No. 5438

Safety Note:

Safety belts, harnesses, lanyards and straps should be used *only* for personnel protection, never to hoist or suspend other loads.



Nylon web harness

Made of 1 3/4" wide (44 mm) Type XIII orange nylon web. Shoulder straps are one continuous piece. Harness is adjusted by raising or lowering drop-forged circle D ring through the loop at the back. Equipped with Klein's exclusive double-pass friction buckle for added safety.

Cat. No. 5434



Nylon lift harness

Features upper and lower chest straps, both made of 1 3/4" wide (44 mm) Type XIII orange nylon web. Harness has adjustable shoulder straps and tongue buckles.

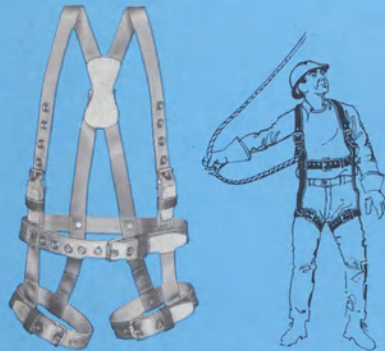
Complete assembly consists of harness; 18' (5.5 m) of 3/8" (14 mm) adjustable spun nylon lanyard with KL468 locking snap at each end; and 7/32" (6 mm) steel aircraft cable, 21" (53 cm) eye-to-eye, to provide additional stability and safety.

Cat. No.	Description
5452	Complete assembly including harness, lanyard and aircraft cable.
5452H	Nylon lift harness only.
5452-E1	12" (30 cm) upper chest extension strap for adapting 5452H harness to larger sizes. Not included in assembly.
5452-E2	12" (30 cm) lower chest extension strap for adapting 5452H harness to larger sizes. Not included in assembly.



SAFETY HARNESSSES

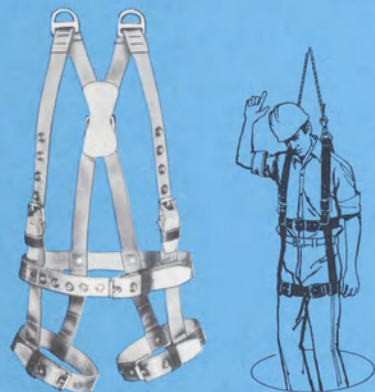
Full Support Harnesses—ANSI Class III



Tower harness

This full support, Class III harness distributes impact forces of a fall over the thighs, buttocks, chest and shoulders. Provides increased safety for workers on ladders, transmission towers and other elevated sites. Made of Type XIX orange nylon webbing, reinforced with chrome tanned leather at all wear and load-bearing points. Drop-forged circle D ring at back for attaching a safety line. Forged tongue buckles for easy adjustment. Both the shoulder and leg straps are permanently stitched and riveted in position on the waist belt for added comfort. Shoulder, waist and leg straps are adjustable.

Cat. No. 5436

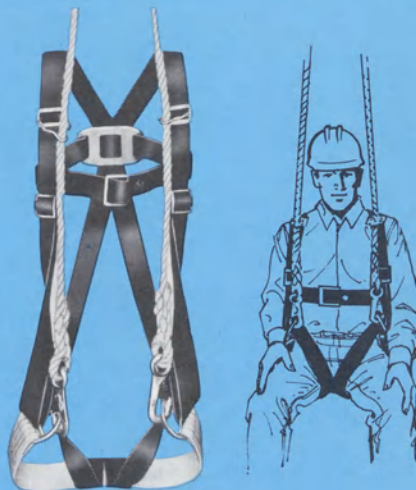


Tank & Manhole harness

Full-support lift harness. Has adjustable drop-forged D rings on each shoulder and one in back to permit quick rescue of workman in a tank, manhole or other confined place.

Cat. No. 5450

Suspension Belts—ANSI Class IV



Rescue and work harness

This parachute-type harness keeps worker in upright position when V sling is held taut. Made of 1½" wide (44 mm) Type XIII orange nylon web. Comes with 5' (1.5 m), ½" (13 mm) nylon filament V sling and 468-5 snaps. Harness adjustable to fit most sizes.

Cat. No.	Description
5423	Standard harness.
5423NS	Standard harness, but equipped with non-sparking hardware. Note: Non-sparking hardware does not meet ANSI strength requirements for harnesses.



Bosun's chair

Slings and belt are 1½" wide (44 mm) orange nylon web. One drop-forged circle D ring for suspending chair, another for securing an independent life line to waist belt. Wooden seat is 12"x24" (30x61 cm), 1" thick (25 mm). Seat is reinforced on underside with metal cleats. Sling is reeved through four seat holes and cleats to cross on underside of seat.

Cat. No. 5427N



Woven nylon multi-purpose safety harness

Made of 1½" wide (44 mm) Type XIII orange nylon webbing stitched to 3" wide (76 mm) mildew-resistant cotton pads on belt and seat. This multi-purpose belt may be used as a positioning belt or lifting and lowering belt. Equipped with two drop-forged circle D rings, snap and ring for attaching accessories. LB belts have drop-forged forked tongue buckles.

Cat. No.	Description
5483	Standard harness with friction buckle.
5483-LB	Same as above but equipped with forked tongue buckle and wrap-around leather billet.
5483S	Same as 5483 but supplied with spreader hook, Cat. No. 456, which maintains an approximate 8" (20 cm) separation of strap for added comfort and greater freedom of movement.
5483S-LB	Same as 5483S but equipped with forked tongue buckle and wrap-around leather billet.



Tree trimmer's belt—ANSI Classes I & IV

Similar to 5483 but comes equipped with 4 drop-forged circle D rings: 2 on seat belt for suspending the worker; 2 on waist belt for added stability and safety.

Cat. No. 5484



Introduction

All of our Lineman's Body Belts are specifically designed for power utility and tele-communications workers who often must spend long hours atop poles. Every belt has a chrome elk-tanned leather cushion to insure maximum comfort.

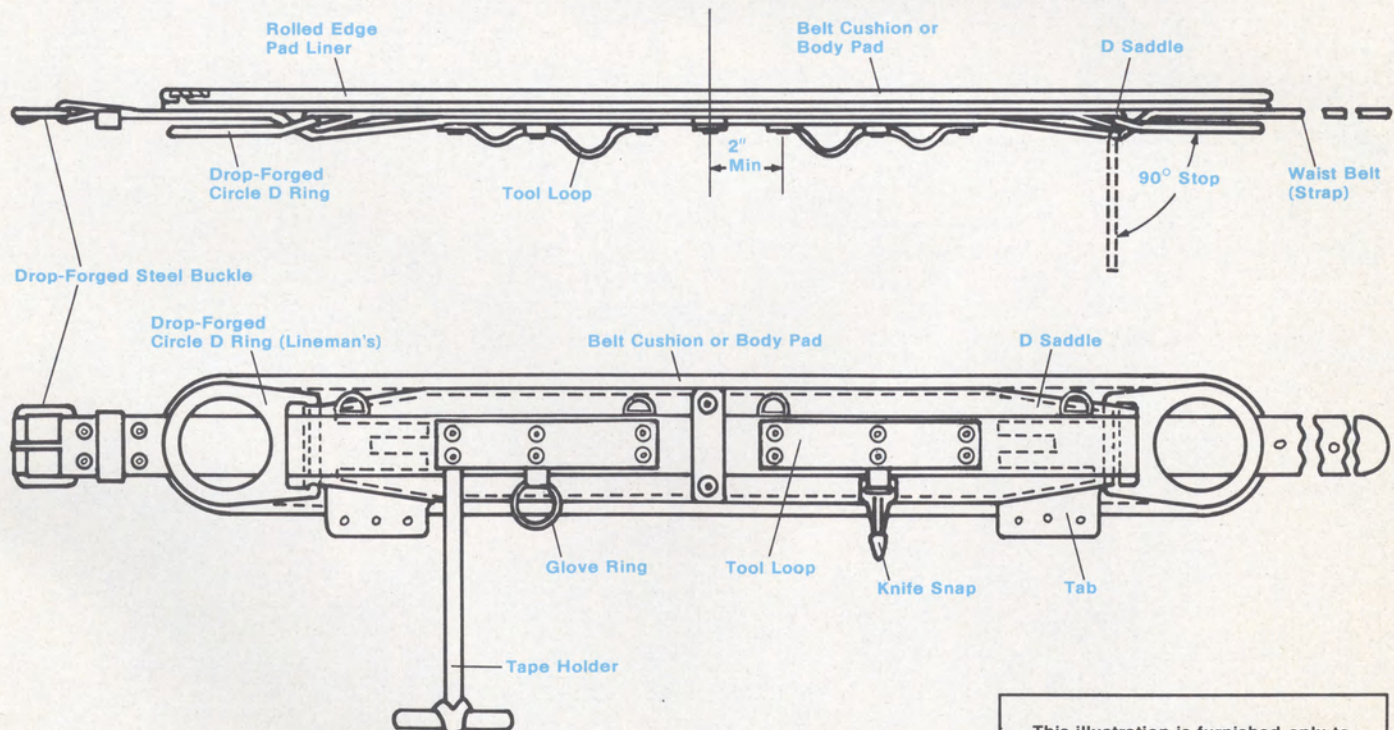
The load-bearing material in Klein body belts is our exclusive Klein-Kord, filament nylon webbing that is neoprene-impregnated and vulcanized. Klein-Kord is virtually unaffected by creosote and other pole-treatment chemicals. In addition, its properties and wear characteristics remain essentially unchanged up to temperatures of 250°F. Tests have demonstrated that for strength and abrasion-resistance, Klein-Kord is unsurpassed in performance by any currently available body belt material.

Klein body belts are available with fixed, semi-floating or full-floating D rings. On our semi-floating belt, tool loops on the waist strap are completely separated from the D ring saddle. Any load or pull on the D rings cannot bind tools in the loops.

The full-floating design allows a 4" (10 cm) lateral movement in the D rings. As a lineman changes position on the pole, the D rings on our full-floating belt will adjust to this movement. As a result, the safety strap slides against the pole less frequently and strap wear is reduced.

All D rings and buckles on Klein body belts are made from select alloy steel, drop-forged and inspected to insure that they meet or exceed all current government and industry standards. Our "circle" D ring design provides added protection against roll-out.

Klein Lineman's Body Belts are designed to meet or exceed all OSHA regulations for power utility (OSHA 1926.959) and telecommunication (OSHA 1910.268) linemen. Each belt is affixed with a permanent metal tag which identifies the model number, serial number, size and date of manufacture.



This illustration is furnished only to amplify the specification text and is not to be considered restrictive as to specific design details.



LINEMAN'S BODY BELTS

Introduction CONT'D

The degree of comfort which a lineman obtains from a body belt depends on the construction of the belt and the location of the D rings. In general, linemen prefer to have the D rings located about 1" (25 mm) in front of the hip bones. To obtain the correct size belt, measure from hip bone to hip bone across the back and add 2" (51 mm).

For a more positive measurement, Klein offers a Sizing Belt, shown below, to assist in determining the correct size belt. The Sizing Belt provides a positive measurement from 18" to 30" (46 to 76 cm) between D rings.

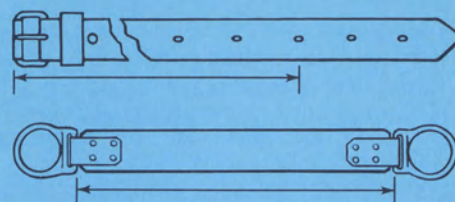
Standard punching of billets is 9 holes on 1" (25 mm) centers to provide proper fit in relation to D ring measurements. Consideration has been given to variations in thicknesses of our different belts. Belts can be made with longer billets at extra charge to increase the maximum length adjustment.

BODY BELT CHART:

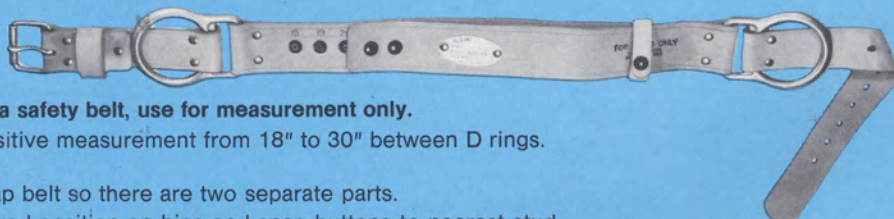
For Cushion Belts 5249N, 5266N, 5268N, 5282N; Dimensions in inches (centimeters).

D-to-D	18	19	20	21	22	23	24	25	26	27	28	29	30
	(46)	(48)	(51)	(53)	(56)	(58)	(61)	(64)	(66)	(69)	(71)	(74)	(76)
Min. Length	32	34	34	36	38	40	42	44	46	48	50	52	54
	(81)	(86)	(86)	(91)	(97)	(102)	(107)	(112)	(117)	(122)	(127)	(132)	(137)
Max. Length	40	42	42	44	46	48	50	52	54	56	58	60	62
	(102)	(107)	(107)	(112)	(117)	(122)	(127)	(132)	(137)	(142)	(147)	(152)	(157)

For the finest in matching tool pouches, pockets and holders, see our selection on pages 51-54.



Order by D-to-D size only.
For example, order Cat. No. 5249N-22".



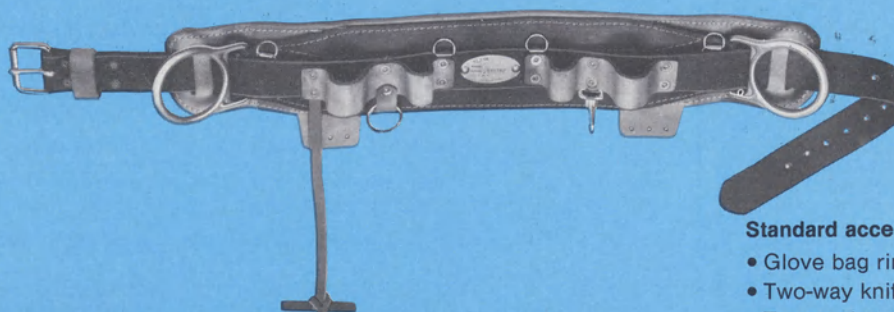
Sizing belt Not a safety belt, use for measurement only.

This belt provides a positive measurement from 18" to 30" between D rings.

To use the Sizing Belt:

- Unbuckle and unsnap belt so there are two separate parts.
- Hold D rings in desired position on hips and snap buttons to nearest stud.
- Now buckle belt on. If D rings fit where desired, order largest size visible to the left of the snaps. Note: disregard location of buckle—correct size buckle end will be furnished.

Cat. No. 5270



Lightweight lineman's belt

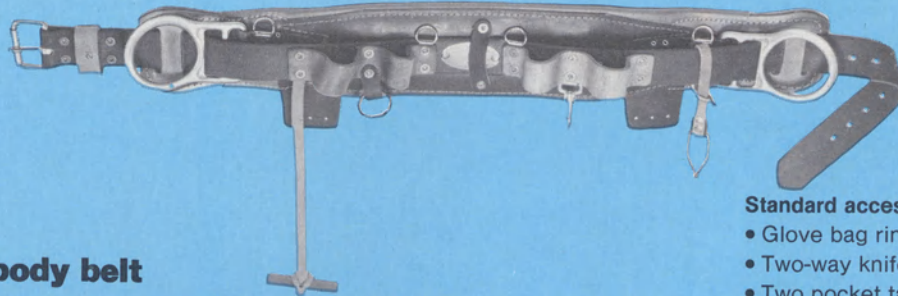
Klein's most economical lineman's belt. Waist strap is 1 3/4" wide (44 mm) 6-ply Klein-Kord. D saddle and pocket tabs are made of neoprene-impregnated nylon fabric. Double-riveted harness leather tool loops are 1 1/2" wide (38 mm). Belt cushion is chrome elk-tanned leather. 90° single bar circle D rings. Complete belt assembly weighs only 4 1/8 lbs (1.9 kg).

Standard accessories included

- Glove bag ring.
- Two-way knife snap.
- Two pocket tabs.
- Four belt suspender rings.
- Tape thong.

Cat. No.
5268N

Overall Width
4 1/2" (11 cm)



Semi-floating nylon-leather body belt

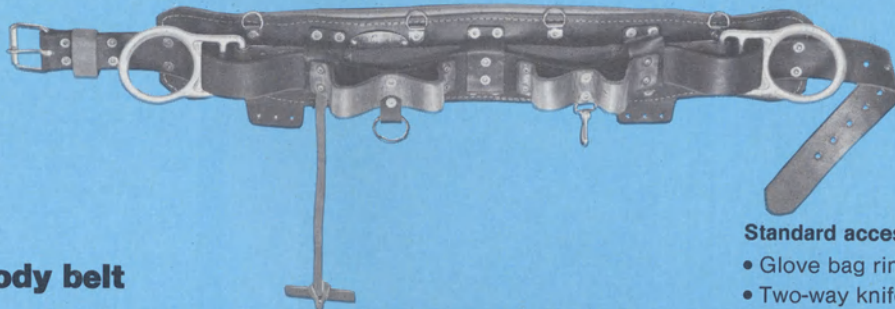
This Klein belt couples light weight, and the added comfort of a sponge-rubber padded belt cushion, with our semi-floating design. Allows lateral movement for added mobility on the pole. Waist strap is 1 3/4" wide (44 mm) 6-ply Klein-Kord for unsurpassed strength and durability. The D saddle and pocket tabs are made of neoprene-impregnated nylon. Tool loops are leather. Equipped with 30° double-bar circle D rings.

Standard accessories included

- Glove bag ring.
- Two-way knife snap.
- Two pocket tabs.
- Four belt suspender rings.
- No. 5133 hand line carrier.
- Tape thong.

Cat. No.
5266N

Overall Width
5" (13 cm)



Full-floating body belt

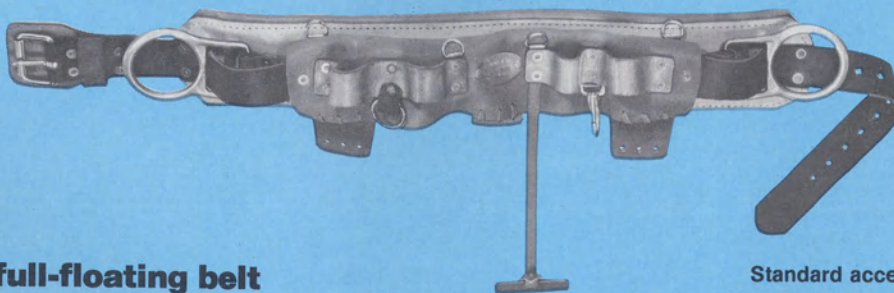
Here is a belt with a full-floating trace of nylon web 1 3/4" wide (44 mm) that allows approximately 4" (10 cm) of free movement. Waist strap is 1 3/4" wide (44 mm) 6-ply Klein-Kord. D saddle and pocket tabs are neoprene-impregnated nylon. Double-riveted leather tool loops are 1 1/2" wide (38 mm). The chrome elk-tanned leather cushion is padded with sponge rubber for added comfort. 30° double-bar circle D rings.

Standard accessories included

- Glove bag ring.
- Two-way knife snap.
- Two pocket tabs.
- Four belt suspender rings.
- Tape thong.

Cat. No.
5282N

Overall Width
5" (13 cm)



Klein's finest full-floating belt

Compare this belt for safety, comfort and durability to any in the industry. It's equipped with our standard 1 3/4" wide (44 mm) 6-ply Klein-Kord waist belt; a full-floating trace of nylon web 1 3/4" wide (44 mm) that allows approximately 4" (10 cm) of lateral movement; a sponge-rubber padded cushion of the finest chrome elk-tanned leather; and a leather apron securely attached to the saddle which separates the D strap from the tool loops. D saddle is harness leather. Pocket tabs are made of neoprene-impregnated nylon; Double-riveted leather tool loops are 1 1/2" wide (38 mm). Equipped with 30° double-bar circle D rings.

Standard accessories included

- Glove bag ring.
- Two-way knife snap.
- Two pocket tabs.
- Four belt suspender rings.
- Tape thong.

Cat. No.
5249N

Overall Width
5" (13 cm)



LINEMAN'S BODY BELTS

Lineman's Belt Accessories



Klein-Kord nylon extension strap

Used with safety straps where extra length is necessary on large diameter poles. Has drop-forged circle D ring and snap. 1 3/4" wide (44 mm); 15" long (38 cm).

Cat. No.	Description
5236	With standard snap.
KL5236	With Klein-Lok snap.



Suspension straps are adjustable on belt. Positioned here for illustration purposes only.

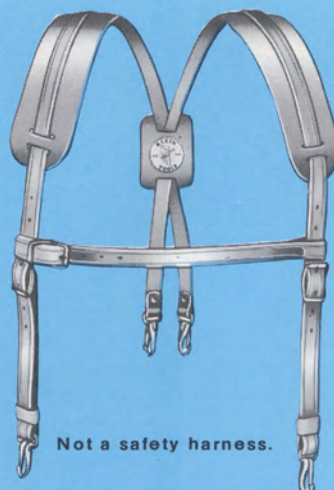
Waist belt supporters

Assists in holding the body belt in the preferred position. This tool belt supporter or "gut strap" is 1 3/4" wide (44 mm) harness leather. Has four 3/4" wide (19 mm) suspension straps, each equipped with a snap and buckle for easy adjustment. Rings for attaching belt supporter are standard on all Klein lineman's body belts.

Cat. No.	Size Adjustable
5208	36"-46" (91-117 cm)

Same as 5208 leather supporter except made of 6 ply Klein-Kord nylon. Adjustable suspension straps are 3/4" wide (19 mm) 3-ply neoprene-impregnated nylon.

Cat. No.	Size Adjustable
5208N	36"-46" (91-117 cm)



Harness leather belt suspenders

These suspenders distribute the weight of belt and tools over the upper torso. Made of lightweight, extremely durable harness leather. Fully adjustable front and back. Each strap equipped with snap. Rings for attaching suspenders are standard on all Klein lineman's body belts.

Cat. No. 5213

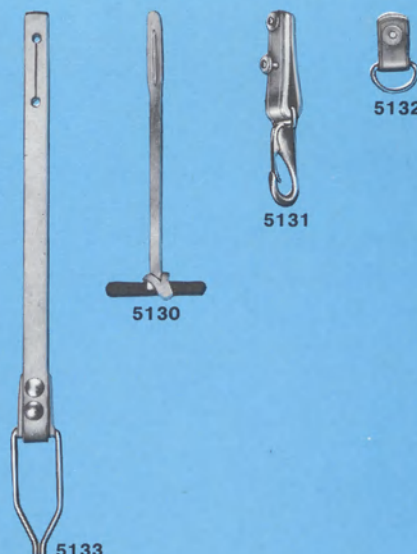


Wrench holder

Metal lag-wrench holder is riveted to leather pad for attaching to belt with screw type rivets.

Cat. No. 5134

Order from your local distributor.
Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.



Handline safety clip

Handline safety clip with leather thong. Tension of between 8 and 12 lbs (approx. 3.5 and 5.5 kg) releases the handline automatically should it snag, assuring maximum safety. Slotted for easy attachment to belt.

Cat. No.	Overall Length
5133	10 1/2" (27 cm)

Tape thong

Leather thong with fiber bar. Fits all standard electrical tape rolls. Slotted for easy attachment to belt or pouch.

Cat. No.	Length
5130	12" (30 cm)

Two-way knife snap

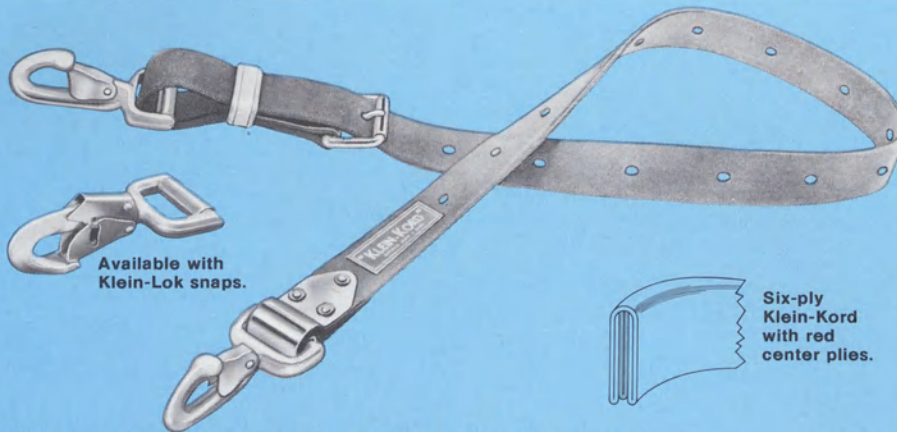
Knife snap with leather strap and screw type rivets for attaching to belt.

Cat. No.	Length
5131	4 1/2" (11 cm)

Wire D-shaped ring

D-shaped ring with leather strap and screw type rivets for attaching to belt.

Cat. No. 5132

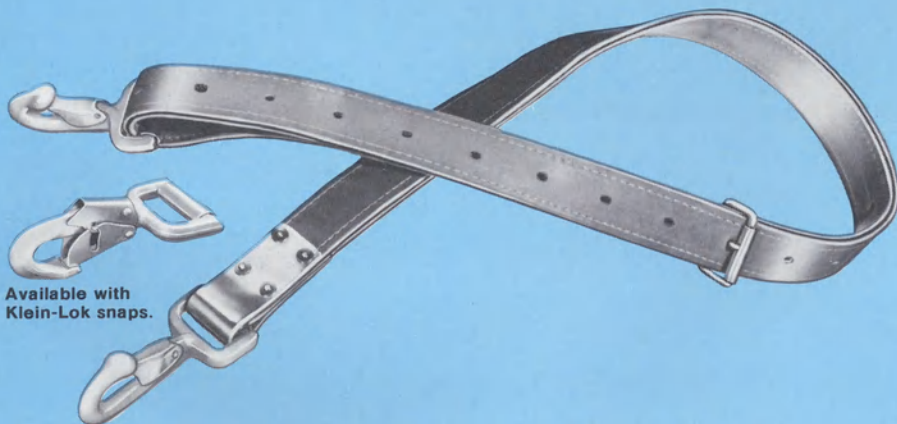


Klein-Kord Adjustable Safety Straps

Made of high-tensile continuous filament nylon fabric that is thoroughly impregnated with neoprene and vulcanized to provide desired flexibility and maximum strength. Klein-Kord straps are widely recognized for their unsurpassed strength and durability. Abrasion tests have shown that Klein-Kord straps often outlast competing materials by a margin of 3 to 1. When wear does occur, Klein-Kord provides two red-colored center plies to help alert the user that the strap must be replaced. Klein-Kord straps also have unsurpassed dielectric characteristics and resistance to creosote and other pole-treatment chemicals. These adjustable straps are 1 $\frac{3}{4}$ " wide (44 mm), and are equipped with drop-forged and heat-treated single tongue adjustment buckle and drop-forged snaps on each end.

Klein-Kord adjustable safety straps are available in standard lengths from 5'8" to 8' (1.7-2.4 m). Longer adjustable straps and fixed-length straps are available on special order.

All standard length straps may be ordered with Klein's exclusive double-latch Klein-Lok snap for added safety. To engage or release this snap it is necessary to depress two latches at the same time. Snap design insures that this can be easily accomplished with one free hand. Like all of our safety products and components, Klein-Lok drop-forged snaps meet or exceed OSHA standards. Each Klein safety strap is permanently identified with catalog number and date of manufacture.



Leather Safety Strap with Nylon Center

For those who prefer the feel of leather, which by itself lacks the strength to pass the OSHA drop test, Klein offers adjustable leather straps that are designed to conform to OSHA regulations. The double thick latigo leather in these straps is reinforced by a woven nylon web center which is laminated and channel stitched to reduce wear on the nylon thread. These adjustable straps are 1 $\frac{3}{4}$ " wide (44 mm) and are equipped with drop-forged and heat-treated snaps on each end. Standard length is 6' (1.8 m). Can also be supplied from stock in lengths of 6 $\frac{1}{2}$ ' (2.0 m) and 7' (2.1 m).

Cat. No.	Length	Description
5295	5'8" (1.7 m)	With stand-ard snaps.
KL5295	5'8" (1.7 m)	With Klein-Lok snaps.
5295-6	6' (1.8 m)	With stand-ard snaps.
KL5295-6	6' (1.8 m)	With Klein-Lok snaps.
5295-6-6	6'6" (2.0 m)	With stand-ard snaps.
KL5295-6-6	6'6" (2.0 m)	With Klein-Lok snaps.
5295-7	7' (2.1 m)	With stand-ard snaps.
KL5295-7	7' (2.1 m)	With Klein-Lok snaps.
5295-8	8' (2.4 m)	With stand-ard snaps.
KL5295-8	8' (2.4 m)	With Klein-Lok snaps.
KL5296	5'8" (1.7 m)	Fixed end has standard snap, adjust-able end has Klein-Lok snap.
KL5296-6	6' (1.8 m)	Same as KL5296.
KL5296-6-6	6'6" (2.0 m)	Same as KL5296.
KL5296-7	7' (2.1 m)	Same as KL5296.
KL5296-8	8' (2.4 m)	Same as KL5296.

Cat. No.	Length	Description
5272-6	6' (1.8 m)	With stand-ard snaps.
KL5272-6	6' (1.8 m)	With Klein-Lok snaps.
5272-6-6	6'6" (2.0 m)	With stand-ard snaps.
KL5272-6-6	6'6" (2.0 m)	With Klein-Lok snaps.
5272-7	7' (2.1 m)	With stand-ard snaps.
KL5272-7	7' (2.1 m)	With Klein-Lok snaps.

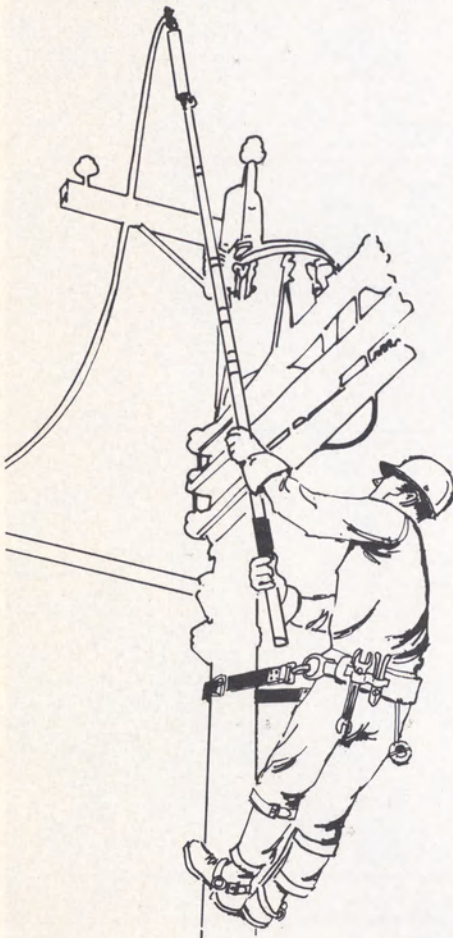


CLIMBERS & ACCESSORIES

Introduction

Through the years, climbers have undergone many changes and revisions: From the old Western Hook, to the fixed gaff/fixed length, to the fixed gaff/adjustable length, to the current replaceable gaff/adjustable length.

Today, Klein's modern replaceable gaff climber with adjustable sleeves eliminates the need for stocking special sizes and permits installation of new gaffs in the field. Safety is enhanced because it is no longer necessary to resharpen gaffs in the field. In fact, many companies now replace all gaffs as they become dull, rather than incur the expense and risk of improper resharpening.



Lineman's training film available.

A 35 millimeter sound slide safety film, *The Art of Climbing... Safety*, in color, is available for showing without charge from Klein Tools. This film gives important information on the proper selection and use of body belts, safety straps, and climbing equipment and offers safety-related tips on working habits and techniques.

Pole Climbers



Patent No. 3,867,998

1972AR adjustable climber with replaceable gaffs

Our 1972AR Adjustable Climber incorporates all of the features that linemen have found most desirable in climber design, backed by our experience of more than 100 years.

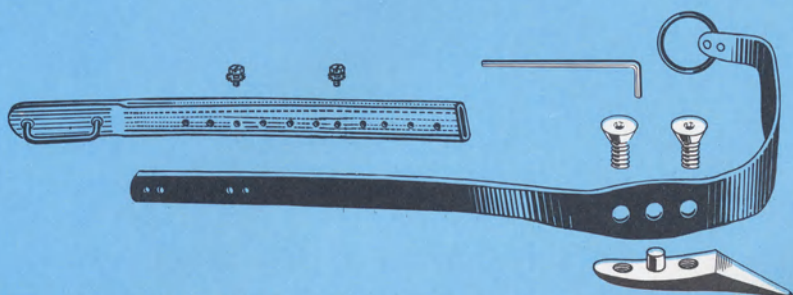
In lab tests and in the field, this climber has proven to be unsurpassed in ruggedness, durability and safety. The broad stirrup gives greater support to the foot, reducing fatigue. The contoured leg irons bring the gaff in proper line with the leg, assuring proper positioning with greater security and comfort.

A steel sleeve fits over the leg iron and is held in place with two slotted hex head bolts with Shake-proof lock washers. Two climber sizes are available: one adjustable in $\frac{1}{4}$ " increments (6 mm) from 15" (38 cm) to 19" (48 cm); and the other in $\frac{1}{4}$ " increments (6 mm) from 17" (43 cm) to 21" (53 cm). Size selection should be made based on measurement from instep to 1" (25 mm) below the knee joint.

Gaffs are $1\frac{1}{2}$ " long (38 mm), held securely to the leg iron by a center pin in the gaff and two flat socket head cap screws.

Climbers are equipped with a split ring to hold the ankle strap. This makes it possible to replace the ankle strap quickly and easily even in the field.

Cat. No.	Size Adjustable
1972AR	15" to 19" (38-48 cm)
1972ARL	17" to 21" (43-53 cm)



Replaceable gaffs

Pair of gaffs supplied with flat socket head cap screws and wrench.

Cat. No.	Description
72	Pair of $1\frac{1}{2}$ " gaffs (38 mm).
59	Pair of $1\frac{1}{2}$ " gaffs (38 mm) for discontinued adjustable climbers Nos. 1958 and 1959AR.

Pole Climbers CONT'D



1972AR with straps and pads

The 1972AR climber is available with straps and pads. Pads are Klein No. 8210 made of latigo leather, padded with rubberized horse hair. Size is 8"x8" (20x20 cm). Either leather (Cat. No. prefix "C") or nylon (Cat. No. prefix "CN") calf and ankle straps are available.

Cat. No.	Description
C1972AR	Size adjustable 15" to 19" (38-48 cm). Same as 1972AR, but equipped with No. 8210 pads, 5301-9 leather calf straps and 5301-26 leather ankle straps.
C1972ARL	Size adjustable 17" to 21" (43-53 cm). Same as 1972ARL, but equipped with same straps and pads as C1972AR.
CN1972AR	Size adjustable 15" to 19" (38-48 cm). Same as 1972AR, but equipped with No. 8210 pads, 5301-18 nylon calf straps and 5301-20 nylon ankle straps.
CN1972ARL	Size adjustable 17" to 21" (43-53 cm). Same as 1972ARL, but equipped with same straps and pads as CN1972AR.

Tree Climbers



An adjustable climber with extra long, 3½" (89 mm) gaff designed for maximum safety when climbing trees. Two sizes are available: one adjustable in ¼" increments (6 mm) from 15" (38 cm) to 19" (48 cm); the other in ¼" increments (6 mm) from 17" (43 cm) to 21" (53 cm). All Klein tree climbers come equipped with No. 8210 climber pads. Either leather (Cat. No. prefix "C") or nylon (Cat. No. prefix "CN") calf and ankle straps are available.

Cat. No.	Description
C1907A	Size adjustable 15" to 19" (38-48 cm). Equipped with No. 5301-9 leather calf straps; 5301-10 leather ankle straps.
CN1907A	Size adjustable 15" to 19" (38-48 cm). Equipped with No. 5301-18 nylon calf straps; 5301-19 nylon ankle straps.
C1907AL	Size adjustable 17" to 21" (43-53 cm). Same straps as C1907A.
CN1907AL	Size adjustable 17" to 21" (43-53 cm). Same straps as CN1907A.



Klein gaff gauge

Handy gauge simplifies checking gaffs to make sure they are properly sharpened. Furnished with complete instructions for checking and sharpening.

Cat. No. KG-1

Caution: All pole and tree climbers are for use by trained and qualified people only.



CLIMBERS & ACCESSORIES

Ankle & Calf Straps



Nylon calf straps

These neoprene-impregnated nylon calf straps may be used with any Klein pole or tree climbers.

Cat. No.	Description
5301-18	One pair; 1"x22" (25 mm x 56 cm)
5301-21	One pair; 1 1/4"x22" (32 mm x 56 cm)

Nylon ankle straps

Neoprene-impregnated nylon ankle straps for use with No. 1907 Series and comparable slotted climbers only.

Cat. No.	Description
5301-19	One pair; 1"x26" (25 mm x 66 cm)
5301-22	One pair; 1 1/4"x26" (32 mm x 66 cm)



Leather calf straps

These calf straps may be used with any Klein pole or tree climbers.

Cat. No.	Description
5301-4	One pair; 1 1/4"x22" (32 mm x 56 cm)
5301-9	One pair; 1"x22" (25 mm x 56 cm)

Leather ankle straps

These leather ankle straps are for use with No. 1907 Series and comparable slotted climbers only.

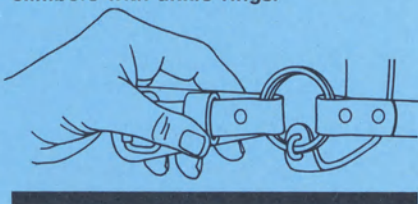
Cat. No.	Description
5301-10	One pair; 1"x26" (25 mm x 66 cm)
5301-14	One pair; 1 1/4"x26" (32 mm x 66 cm)

All Klein climber straps are sold only in pairs.

Ankle Straps & Pads

To simplify replacement, Klein has developed a split ring ankle strap that far surpasses all current safety requirements. Since no special tools are required, installation or removal of these climber straps may be readily accomplished in the field.

As shown in the illustration, replacing or removing any Klein split ring climber strap is now as easy as slipping a key onto a key ring. These split ring straps fit all No. 1972 Series and comparable climbers with ankle rings.



Nylon ankle straps

Cat. No.	Description
5301-20	One pair; 1"x24" (25 mm x 61 cm)
5301-23	One pair; 1 1/4"x24" (32 mm x 61 cm)



Leather ankle straps

Cat. No.	Description
5301-16	One pair; 1 1/4"x24" (32 mm x 61 cm)
5301-26	One pair; 1"x24" (25 mm x 61 cm)

Angle climber pads

Right and left L-shaped pads of high-grade latigo leather, cushioned with rubberized horse hair.

Cat. No.	Description
8210	One pair; 8"x8" (20x20 cm)



Climber Gaff Guards

Retractable gaff guard



Retractable gaff guard attaches to ankle strap. Slips down over gaff for protection when not in use. When climber is to be used, this leather gaff guard slips up and is secured out of the way by the ankle strap.

Cat. No.	Description
1968G	One pair retractable gaff guards (for pole climbers only).

Removable gaff guard



Removable leather guard slips over gaff when not in use, secured by a stainless steel spring clip. Guard snaps off quickly.

Cat. No.	Description
1945G	One pair removable gaff guards (for pole climbers only).

Order from your local distributor.
Klein distributors maintain a large stock of Klein tools and equipment and can fill your order rapidly.

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